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ABSTRACT

The Milwaukee Bilingual Education Program has been guided by behavioral objectives related to desired pupil, staff, management, parent and community outcomes. The objectives were developed and revised mainly by curriculum supervisors. Frequent references are made to two publications, "Milwaukee Public Schools Bilingual Elementary Program K-4," and "Performance Objectives for Bilingual Education Offerings at the Secondary Level," which define the totality of the behavioral objectives and contain the test item pools of expected pupil behaviors. Of the several objectives in each subject content area, supervisory and/or teaching staff members selected two to be evaluated for each component in 1971-1972. Some behavioral objectives were analyzed in terms of percent of pupil achievement by language dominance. Tests of significance have been included for comparisons of pre/post scores and comparison of Bilingual Program groups with other groups. The report of pupil outcomes is divided into three sections: kindergarten, primary, and secondary. Each section is subdivided into curriculum areas. Under each curriculum area, there are statements of goals, objectives measured, classroom procedure, evaluation procedure, findings, and conclusion. A summary concludes each section. (Author/CK)

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BILINGUAL EDUCATION PROGRAM

EVALUATION REPORT 1971-1972

DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT

DEPARTMENT OF EDUCATIONAL RESEARCH AND PROGRAM ASSESSMENT

ED 072077

MILWAUKEE PUBLIC SCHOOLS
Milwaukee, Wisconsin

Evaluation Report

Milwaukee Bilingual Education Program

1971 - 1972

Division of Planning and
Long-Range Development

Department of Educational Research
and Program Assessment

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INTRODUCTION

The Milwaukee Bilingual Education Program has been guided by behavioral objectives related to desired pupil, staff, management, parent and community outcomes. The objectives were developed and revised mainly by curriculum supervisors. Classroom experience and a broadened curriculum necessitated major revisions and additions of objectives prior to the funding period reported herein. Because bilingual teaching of the subject areas was without precedent, the setting of criteria for the new objectives was postponed until the next (1972-1973) funding period. Results reported for 1971-1972 comprise, in the main, baseline data to be used as a reference point in defining criterion behaviors. During the 1971-1972 period, the revised curriculum objectives and processes were described in two publications, "Milwaukee Public Schools Bilingual Elementary Program K-4" and "Performance Objectives for Bilingual Education Offerings at the Secondary Level". Frequent references will be made to the two publications, which define the totality of the behavioral objectives and contain the test item pools of expected pupil behaviors. Of the several objectives in each subject content area, supervisory and/or teaching staff members selected two to be evaluated for each component in 1971-1972. Achievement of many K-4 objectives was expected at the end of a three- or four-year primary program. Assessment of these objectives by grade level was undertaken to provide a formative evaluation describing progress toward the goals.

Some behavioral objectives were analyzed in terms of percent of pupil achievement by language dominance. Division of groups into the three language

categories - English-dominant, Spanish-dominant, and bilingual - resulted in such small populations that it would have been meaningless to apply statistical tests of significance to the data. It is suggested that the results be interpreted as possible trends to be confirmed or challenged with replication over time.

Tests of significance have been included for comparisons of pre/post scores and comparison of Bilingual Program groups with other groups. The .01 level of confidence was selected as the criterion for significance. For pre/post, a significant outcome indicates that a difference that great would have occurred by chance only one time in 100. For comparisons with other groups, a significant outcome means that, if the groups represented the same population, a difference this great would occur only once in 100 times. However, these tests are included only as a gross sort of yardstick as their use assumes controls which could not be implemented: random sampling to establish the experimental and control groups; a normal distribution of scores; and uniform treatment. Violations of these assumptions were: pupils were enrolled in the program by parents at the elementary level and by student election at the secondary level; many skewed distributions of scores; and teacher variables in use of methods and materials.

Results at both elementary and secondary levels include only pupils who were both pre and posttested and, therefore, do not reflect achievement of pupils who were late in entering the program or those who left it.

The report of pupil outcomes is divided into three sections: kindergarten, primary, and secondary. Each section is subdivided into curriculum areas. Under each curriculum area, there are statements of goals, objectives measured, classroom procedure, evaluation procedure, findings, and conclusion. A summary concludes each section.

Staff and community goals, objectives, and outcomes are described and summarized in Section Four.

The Appendix contains examples of locally-developed instruments referred to in the text.

In 1971-1972, the program served a total of 380 students. The costs of the special program were funded with a budget of $270,742 provided by ESEA Titles VII and I.

PUPIL POPULATION

In the following tables and throughout the report, there will appear to be inconsistencies in numbers of pupils. The variation is because of differences in population on the different dates of data collection.

TABLE I

Total Population
Milwaukee Bilingual Program, 1971-1972

School	Grade	Totals		
Vieau	Kindergarten	25		
	Grade 1	33		
	Grade 2	47		
	Grade 3	20		
		125	Total Elementary:	125
South Division	Grade 10	58		
	Grade 11	52		
	Grade 12	26		
		136		
Lincoln	Grade 7	4		
	Grade 8	6		
	Grade 9	7		
	Grade 10	1		
	Grade 11	1		
	Grade 12	2		
		21	Total Secondary:	157
			Total Program:	282*

* About 100 additional Spanish-American students at the secondary level, who were not enrolled in the academic program, were given special tutoring help by the bilingual reading teacher and his staff and/or special help by the bilingual student advisors.

TABLE II

Milwaukee Bilingual Education Program
Ethnic Count, Language Dominance,
and Attrition, 1971-1972

	Ethnic Count May, 1972					Language Dominance November, 1971				Attrition September, 1971 - May, 1972										
	Anglo	Cuban	Mexican	Puerto Rican	Total	English	Spanish	Bilingual	Total	Other School	Other City	Texas	Mexico	Puerto Rico	January Graduate	Married	Other	Unknown	Total	Percent of Total Enrollment
VIEAU																				
Kindergarten	0	0	14	13	27	3	11	12	26	1	1	1		1					4	
Grade 1	0	0	10	18	28	5	22	5	32	2				3				1	6	
Grade 2	3	0	28	12	43	14	20	8	42	4	1			1					6	
Grade 3	4	1	10	12	27	6	16	3	25	1									1	
Elementary Total:																				
Number	7	1	62	55	125	28	69	28	125	8	2	1		5				1	17	
Percent	5.9	0.1	50	44		22	56	22												14

(Continued on next page)

TABLE II (Continued)

	Ethnic Count May, 1972					Language Dominance November, 1971				Attrition September, 1971 - May, 1972											
	Anglo	Cuban	Mexican	Puerto Rican	Total	English	Spanish	Bilingual	Total	Other School	Other City	Texas	Mexico	Puerto Rico	January Graduate	Married	Other	Unknown	Total	Percent of Total Enrollment
SOUTH DIVISION																				
Number	1	2	70	46	119	19	71	24	114	13	1	1			5	2	2	2	26	
Percent	.05	2	59	39		17	62	21												
LINCOLN																				
Number	0	0	1	17	18	0	13	0	13	2				5			1		8	
Percent			5	95			100													
Secondary Total:																			44	
Number		2	71	63	137	19	84	24		15	1	1		5	5	2	3	2	34	
Percent	.05	1	52	46		15	66	19												22
Elementary and Secondary Program Total:																				
Number	8	3	133	118	262	47	153	52	252	23	3	2		10	5	2	3	3	51	
Percent	3	.003	51	45		19	60	21												18

KINDERGARTEN

English Language Arts
Spanish Language Arts
Mathematics
Science
Social Studies

The first two years of bilingual kindergarten had conventional half-day sessions. A full-day kindergarten was initiated in 1971-1972. This resulted in greatly enhanced opportunities to understand individual pupils and establish rapport with them, according to the teacher. The teacher rated her bilingualism as the program's greatest advantage. However, she pointed out that communication at the kindergarten level is "mainly through feelings" and indicated that language differences would not interfere with success for non-bilingual kindergarten teachers who could relate to pupils in this way.

Twenty-five pupils were enrolled in bilingual kindergarten during the year. Evaluation of the behavioral objectives refers to the 20 pupils who were in the program all year. Of these, there were three English-dominant, seven Spanish-dominant, and ten bilingual.

ENGLISH LANGUAGE ARTS

GOAL: The pupils will develop and maintain skills that will enable them to understand standard English and to communicate through listening and speaking.

CLASSROOM PROCEDURE

The class was conducted in English on alternate days. Appropriate responses to English by English-dominant pupils also served as models for the acquisition of English language skills.

OBJECTIVE 1

Listening: The pupils will be able to understand English classroom directions and expressions, as defined in "Milwaukee Public Schools Bilingual Elementary Program K-4", page one and two.

Evaluation Procedure

The classroom teacher noted on a checklist when each pupil responded with an appropriate verbal or motor response to his own name, greetings, and classroom directions (e.g., sit down, stand up, follow me).

Findings

The listening skills were in the entering behavioral repertoire of all English-dominant, 82% of bilingual, and 25% of Spanish-dominant pupils. The skills were acquired by 75% of the Spanish-dominant pupils within three months. By the end of kindergarten, the objective had been met by 100% of English-dominant, bilingual, and Spanish-dominant pupils as shown in Figure 1.

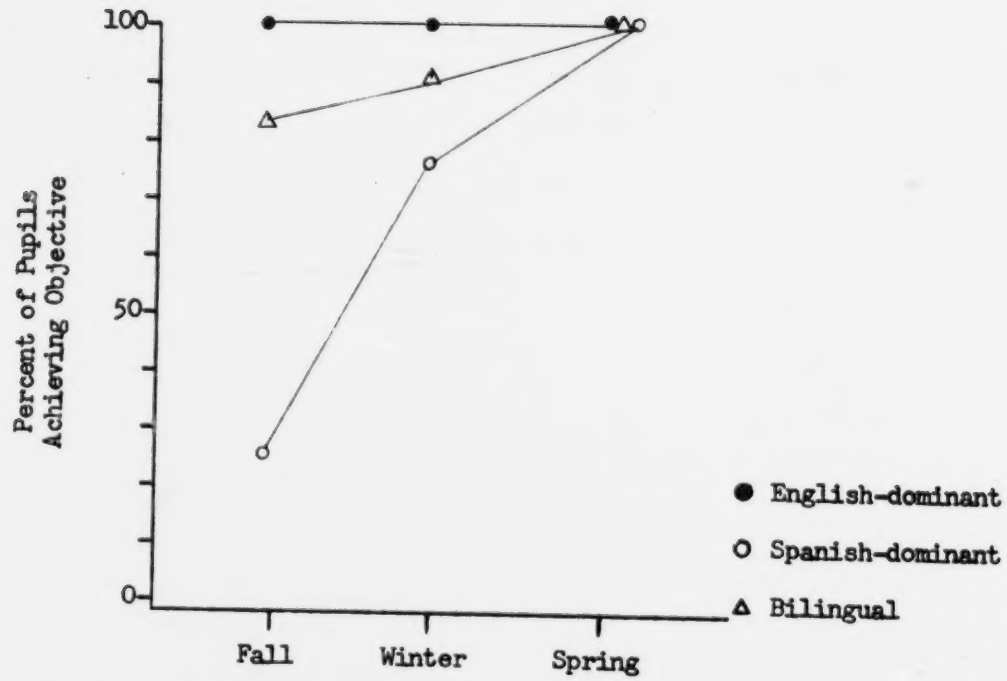


Figure 1. Pupil Acquisition of English Listening Skills, Kindergarten

Conclusion

The objective was inappropriate for English-dominant pupils, who entered with the defined skills. It was a valid expectation for Spanish-dominant and bilingual pupils.

OBJECTIVE 2

Speaking: By the end of kindergarten, the English-speaking pupils will be able to speak English in sentences; Spanish-speaking pupils will be able to use basic English words and expressions, as defined in "Milwaukee Public Schools Bilingual Elementary Program K-4", page two.

Evaluation Procedure

The classroom teacher periodically checked the ability of all pupils to engage in conversation, respond orally to a greeting, identify self and others, name and describe objects, recite a poem, and sing a song. In addition, English-dominant pupils were expected to express spatial and temporal relationships and to repeat a three-to-five word message.

Findings

The speaking skills were in the entering behavioral repertoire of all English-dominant, half of the bilingual pupils, and none of the Spanish-dominant. Bilingual and some Spanish-dominant pupils were able to engage in conversation by the end of the school year. This, along with reciting a poem and describing objects by size, was achieved by 57% of Spanish-dominant pupils as shown in Figure 2. The graph does not reveal the fact that each Spanish-dominant child progressed in at least one of the components.

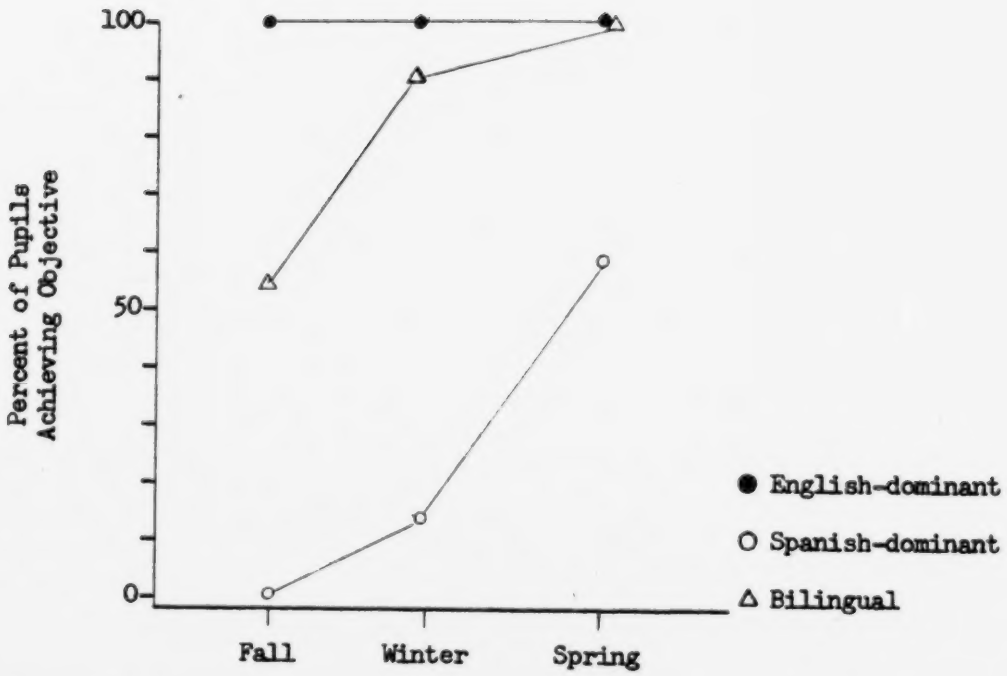


Figure 2. Pupil Acquisition of English Speaking Skills, Kindergarten

Conclusion

The ability to engage in English conversation required the development of a sequence of behaviors which was not completed by the end of the year by Spanish-dominant pupils.

SPANISH LANGUAGE ARTS

GOAL: The pupil will achieve the performance objectives in understanding, speaking, reading, and writing standard Spanish by the time he completes the primary grades.

CLASSROOM PROCEDURE

The class was conducted in Spanish on alternate days. Materials included Spanish stories, songs, and Spanish Language Arts kits furnished for field trial use by the Spanish Curriculum Development Center (SCDC).

OBJECTIVE 1

Understanding: The pupil will acquire the basic listening skills needed to distinguish the sound contrasts of Spanish when spoken at normal speed in regular conversation and to comprehend what is being said, as described in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 80 to 84.

Evaluation Procedure

Twenty-two objectives with "In-Class Test Items" were identified by curriculum and supervisory staff. Criteria were specified for the end of primary. Data were collected at the kindergarten level as components of the formative evaluation. An oral language test was developed for formative evaluation of Spanish comprehension, phonics, and grammar (Appendix A). Starting in spring, tape recordings were made of pupils' responses to questions about a set of ten stimulus pictures. A Marquette University professor of Spanish listened to the tape cassettes and rated the responses. Results were transferred to the Pupil Achievement Record (Appendix B). Each pupil had an individual cassette on which to record samples of oral Spanish throughout his primary school years. Any appropriate English or Spanish response to a Spanish ques-

tion was accepted as evidence of Spanish comprehension.

Findings

The possible high score (number of correct responses) for comprehension of oral Spanish was 21. As shown in Figure 3, average scores were 12.33 for English-dominant, 13.00 for bilingual, and 15.29 for Spanish-dominant kindergarten pupils.

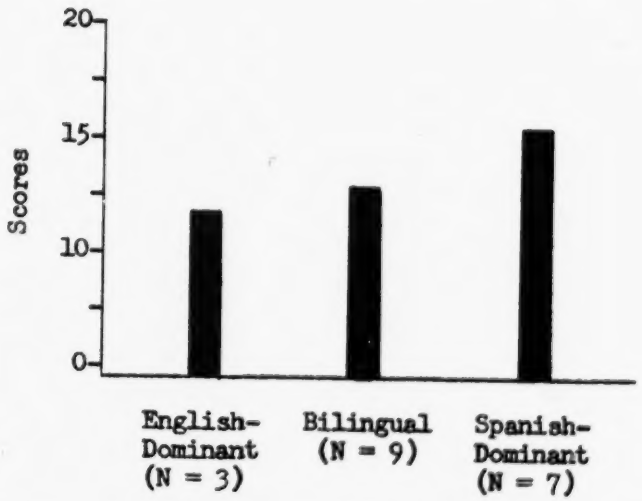


Figure 3. Mean Scores by Language Dominance on Understanding Subtest, Spanish Oral Language Test, Kindergarten

Conclusion

English-dominant pupils acquired skills approaching those of Spanish speakers in comprehension of oral Spanish.

An item analysis of the first 20 trials of the Spanish Oral Language Test was conducted by the University of Wisconsin, Department of School Information Systems. The analysis (Appendix C) indicated high reliability and resulted in a recommendation for further work with the test.

OBJECTIVE 2

Speaking: The pupil will acquire the basic speaking skills needed for correct pronunciation of Spanish sounds (intonation, rhythm, stress) while using standard grammatical forms and word order in everyday situations. Specific responses are on pages 80 to 102, "Milwaukee Public Schools Bilingual Elementary Program K-4".

Evaluation Procedure

The speaking subtest of the Spanish Oral Language Test, referred to under Objective 1, elicited verbal responses to 28 items scored on a three-point scale (3 = like a native, 2 = acceptable, 1 = unacceptable).

Findings

The possible high score was 74. As shown in Figure 4, average scores by language dominance were 19.5 for English-dominant, 26.0 for bilingual, and 34.0 for Spanish-dominant kindergarten pupils.

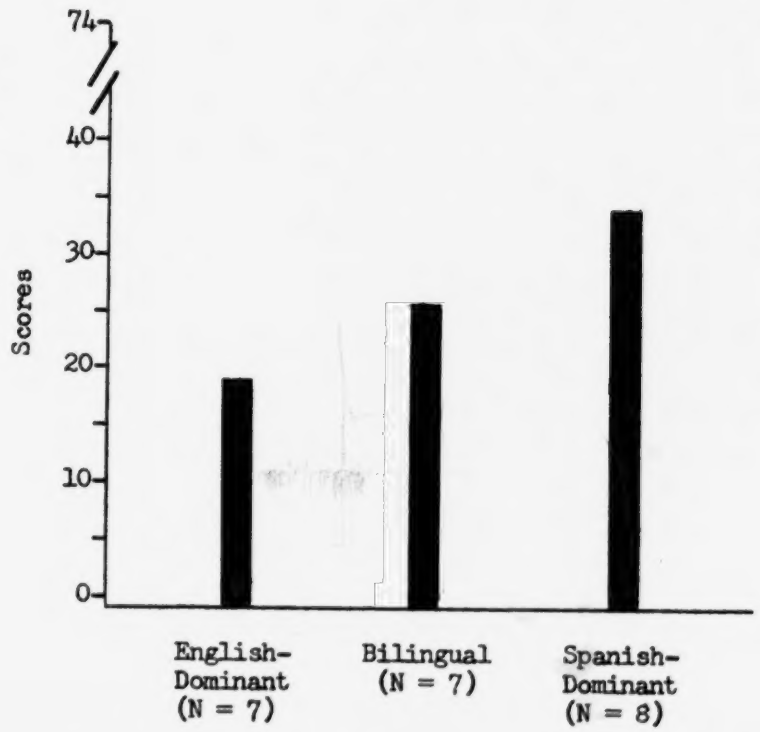


Figure 4. Mean Scores by Language Dominance on Speaking Subtest, Spanish Oral Language Test, Kindergarten

Conclusion

Spanish-speaking skills were rated by language dominance according to expectations. Results furnished baseline data for measurement of performance gains and for establishment of criterion levels.

MATHEMATICS

GOAL: To help pupils develop a mathematical awareness as they are introduced to beginning concepts.

CLASSROOM PROCEDURE

The teacher directed manipulative activities with objects (beads, blocks, etc.) to introduce mathematical concepts. The use of English and Spanish facilitated learning in the dominant language. The Addison-Wesley texts, "Matematica Para La Educacion Primaria, Pre-Escolar" and "Elementary School Mathematics, Primer", were used to introduce abstract symbols.

OBJECTIVES

The child will be able to make comparisons; distinguish geometric shapes; discriminate spatial relationships, distinguish similarities and differences; discover and complete patterns; recognize sets; and compare the cardinal numbers 0 - 9 for a set of objects.

Evaluation Procedure

Progress toward achievement of objectives was recorded on a checklist by the classroom teacher in fall, winter, and spring. The fall/winter group included two English-dominant, ten bilingual, and eight Spanish-dominant pupils. By spring, two English-dominant, nine bilingual, and seven Spanish-dominant pupils remained.

Findings

(See Table III)

TABLE III

Kindergarten Pupil Acquisition
of Mathematics Skills

Skill	Language Dominance	Time of Acquisition by Language Dominance Percent who had skill in: Fall(F)	Winter(W)	Spring(S)
Recognition of Sets (three sets)	English	0	100	100
	Bilingual	1	90	90
	Spanish	0	63	85

Recognition of Shapes		○			□			△			▯		
		F	W	S	F	W	S	F	W	S	F	W	S
	English	100	100	100	100	100	100	0	100	100	0	100	100
	Bilingual	80	100	100	60	100	100	20	100	100	0	100	100
	Spanish	12	87	100	0	87	100	0	87	100	0	87	100

Visual Memory (three skills)		Identify Objects			Missing or Added Objects		
		F	W	S	F	W	S
	English	100	100	100	50	100	100
	Bilingual	70	100	100	40	70	100
	Spanish	25	87	100	0	12	43

Positional Relations (six skills)		Inside - Outside			On - Behind			Over - Under		
		F	W	S	F	W	S	F	W	S
	English	100	100	100	0	100	100	0	100	100
	Bilingual	60	100	100	0	90	100	0	60	89
	Spanish	0	87	85	0	50	85	0	25	71

TABLE III (Continued)

Skill	Language Dominance	Time of Acquisition by Language Dominance Percent who had skill in: Fall(F) Winter(W) Spring(S)											
Order Objects (smallest to largest and largest to smallest)		Smallest to Largest			Largest to Smallest								
		F	W	S	F	W	S						
	English	0	50	100	100	100	100						
	Bilingual	0	50	100	60	100	100						
	Spanish	0	25	85	25	100	100						
Classify Objects		Size			Shape			Color			Texture		
		F	W	S	F	W	S	F	W	S	F	W	S
	English	100	100	100	50	100	100	100	100	100	0	100	100
	Bilingual	60	100	100	20	100	100	60	100	100	0	50	100
	Spanish	25	100	100	0	87	100	37	75	85	0	12	85
Compare Objects (heavy - light, large - small)		Heavy - Light			Large - Small								
		F	W	S	F	W	S						
	English	100	100	100	100	100	100						
	Bilingual	60	60	100	60	60	100						
	Spanish	12	62	85	12	50	71						
Reproduce Patterns by Size, Shape, Color		Size			Shape			Color					
		F	W	S	F	W	S	F	W	S			
	English	0	0	100	50	50	100	50	50	100			
	Bilingual	0	0	88	20	20	100	20	20	100			
	Spanish	0	37	71	12	25	85	12	50	100			

TABLE III (Continued)

Skill	Language Dominance	Time of Acquisition by Language Dominance Percent who had skill in: Fall(F)			Winter(W)			Spring(S)		
Compare Size of Pictured Objects: Larger, Taller, Longer		Larger - Smaller			Taller - Tallest			Longer - Shorter		
		F	W	S	F	W	S	F	W	S
	English	50	50	100	0	0	100	0	0	100
	Bilingual	30	30	100	0	0	33	0	0	88
	Spanish	0	62	85	0	12	57	0	37	71
Identify Similarities and Differences in Size, Shape, Color, Texture		Size			Shape			Color			Texture		
		F	W	S	F	W	S	F	W	S	F	W	S
	English	0	0	100	50	50	100	100	100	100	0	0	100
	Bilingual	0	0	88	40	40	100	60	60	100	0	0	88
	Spanish	0	62	100	12	66	100	37	75	100	0	12	71
Visual Recognition of Sets		More - Less			Match 1 : 1			Equivalent		
		F	W	S	F	W	S	F	W	S
	English	0	0	100	100	100	100	0	0	100
	Bilingual	0	0	88	60	60	100	0	0	88
	Spanish	0	62	85	37	87	85	0	0	57
Identify Cardinal Number of Sets, 0 - 9					F	W	S			
	English				0	0	100			
	Bilingual				0	0	100			
	Spanish				0	25	57			
Identify Numerals 0-9	**English**				0	0	100			
	Bilingual				0	0	100			
	Spanish				0	0	71			

Conclusion

English-dominant pupils entered kindergarten with the ability to recognize shapes, to describe position, to identify objects from memory, to order objects from largest to smallest (but not from smallest to largest), to classify objects by size and color, and compare by weight and size, match 1 : 1, and identify similarities and differences by color. Those skills were possessed by fewer bilingual and very few (25% or less) of Spanish-dominant pupils on entering. There was quick acquisition with instruction. Not in the pupils' entering repertoire were abilities to compare pictured objects by dimension, to make size and texture comparisons, to recognize quantities or identify cardinal numbers of sets. At the end of kindergarten, all but a few pupils achieved the objectives.

Because arithmetic was taught in both Spanish and English, language should not have been a factor. The bilingual staff identified cultural child-rearing differences (such as the amount of visual stimuli and time available to interact with children) as the probable reasons for the initial discrepancy in skill levels of Spanish-dominant pupils.

SCIENCE

GOAL: To develop in pupils an awareness of the properties of the world around them.

CLASSROOM PROCEDURE

Science was taught bilingually. The class recorded and measured the growth of plants. Pupils measured their heights. Fish, animals, and growing plants were observed.

OBJECTIVE

The pupil will use the process skills of observing, describing, experimenting, classifying, identifying, measuring, and recording to discover the properties of objects, plants, and animals, as indicated in "Milwaukee Public Schools Bilingual Elementary Program K-4", page five.

Evaluation Procedure

The skills of observing, describing, classifying, and identifying were tested individually. Pupils were asked to point out similarities, differences, and seasonal changes in a set of summer and winter woodland scenes.

Findings

Sixty-eight percent correctly identified at least four similarities in pictured size, color, texture, position, or movement; 63% correctly identified at least four differences by property; and 82% correctly identified seasonal differences. Those who encountered difficulties appeared to lack experience with concepts of perspective and/or positional relationships.

Conclusion

More than half of the group demonstrated abilities to identify, classify, and describe their observations. The percentages of correct test performance established a baseline for setting criterion levels.

SOCIAL STUDIES

GOAL: To help pupils learn to live successfully in a school environment and to introduce them to the culture of the United States and the Latin heritage.

CLASSROOM PROCEDURE

Pupils were taught personal independence and concern for others as in any kindergarten. Bilingual culture was stressed by observance of both United States and Latin-American holidays.

OBJECTIVES 1 AND 2

The child will be able to:

-- share with classmates

-- take care of himself independently, as defined in "Milwaukee Public Schools Bilingual Elementary Program K-4", page seven

Evaluation Procedure

The classroom teacher noted the acquisition of cooperative behavior (sharing toys, playing games, self-help with wraps and materials, and the ability to follow instructions).

Findings

All except three Spanish-dominant pupils entered with the criterion cooperative behavior and self-help skills. All pupils had met the objectives by mid-year.

OBJECTIVES 3 AND 4

The child will be able to:

-- demonstrate knowledge of Spanish-American and United States customs and geography

-- identify land and water masses on a globe or map, as specified in "Milwaukee Public Schools Bilingual Elementary Program K-4", page eight

Evaluation Procedure

A bilingual tester assessed pupils individually on ability to identify a picture of President Nixon; the flags of the United States, Puerto Rico, and Mexico; pictures associated with Halloween, Thanksgiving, Mexican Independence Day, and El Dia de La Raza; and land and water masses on a globe.

Findings

Of the 22 bilingual kindergarten pupils, 55% correctly identified the President; 36% identified all three flags, 5% identified two flags, 32% identified one flag, 27% did not identify any flag; 50% identified all holidays (Halloween, Thanksgiving, Mexican Independence Day, El Dia de La Raza); and 27% identified land and water masses on a globe.

Conclusion

Social studies objectives relating to pupil adaptation to the classroom appeared to have been learned in the course of daily experience. Objectives related to culture and geography fell between 25% and 75% of attainment, perhaps reflecting intermittent rather than continual emphasis.

PRIMARY

English Language Arts
Spanish Language Arts
Mathematics
Science
Social Studies

1969-1970

The program was initiated with one first grade class at Vieau and a first and second grade at Bruce-Guadalupe Community School, all taught bilingually in self-contained classrooms.

1970-1971

The addition of a bilingual second grade at Vieau and a third grade at Bruce-Guadalupe enabled pupils to continue in the program. Bruce-Guadalupe continued the self-contained classroom. Vieau introduced team teaching in reading and mathematics with the provision of a bilingual supervising teacher who met with small groups from the regular classrooms during the day. At the end of the year, Bruce-Guadalupe elected to become independent of the Milwaukee Public Schools and left the program.

1971-1972

The bilingual first grade class at Vieau was provided with two teachers who worked together in the classroom. In spring, kindergarten and first grade teamed by introducing first grade work for part of the day to 11 kindergarteners deemed "ready". In return, selected first graders (still at the "readiness" level) were sent for a period to the free play atmosphere of the kindergarten.

There were two second grades and one third grade whose teachers teamed with a bilingual resource teacher who served as coordinator of the elementary program. During the first semester, second and third graders moved among the teaching team for instruction by ability groups. The teaching staff found there was not adequate planning time for this arrangement and considerable time was lost in pupil movement. Therefore, the self-contained classroom was revived for reading and mathematics in the mornings during the second semester. Pupils were placed

according to English/Spanish reading ability. Departmentalized teaching was continued in the afternoon for oral language (grouping by language dominance), science, and social studies. Staff members taught according to their subject area strengths.

The Bilingual Program and comparison group primary staff, by grade level, numbered:

	Bilingual Program		Comparison Group	
	Teachers	Aides	Teachers	Aides
Kindergarten	1	1	1	¼
Grade 1	2	1	1	½
Grade 2	2	2	1	½
Grade 3	1	1	1	¼
Resource Teacher	1	0	0	0
	7	5	4	1½

Daily enrollment was approximately 102 in the Bilingual Program and 137 in the comparison group. One similar class at each grade level in the same school comprised the comparison groups. The class size and teacher/pupil ratio of comparison groups are typical of regular classes in the Milwaukee Public Schools system. Program outcomes should be interpreted in the context of the smaller class sizes and larger teaching staff of the Bilingual Program.

ENGLISH LANGUAGE ARTS

GOALS: The pupil will develop and maintain skills that will enable him to understand standard English and communicate with English-speaking people through listening, speaking, reading, and writing.

PERFORMANCE OBJECTIVES

After completing primary school in either a two-, three-, or four-year program, both the Spanish- and English-dominant pupils will meet the objectives listed below.

OBJECTIVE 1

Listening: The pupil will distinguish the sound contrasts of English when spoken at normal speed in regular conversation and comprehend what is said. He will demonstrate the skills listed in "Milwaukee Public Schools Bilingual Elementary Program K-4", page ten.

Classroom Procedure

English was used as the language of the classroom at least 50% of the time.

In grades one and two, the "Instant Reader" was used to elicit behavioral responses to oral English.

Evaluation Procedure

Scores on the "Listening" subtest of the Cooperative Primary Test were used as a measure of the criterion comprehension, recall, and interpretation skills. The test was administered by classroom teachers in May, 1972. It required pupils to respond to stimulus sentences read by the teacher.

Mean scores of Bilingual Program pupils were compared with the regular classes taught in English only, as shown in Table IV. In effect, the

performance of the comparison group was considered the grade-level "norm" for this objective.

Findings

TABLE IV

Mean Scores of
Bilingual Program and Comparison Pupils on
Cooperative Primary Listening Subtest, May, 1972

Grade Level	Form	Bilingual		Comparison		Difference	t
		Number of Pupils	Mean Score	Number of Pupils	Mean Score		
1	12A	16	27.56	32	35.38	7.82	3.14*
2	12A	27	29.82	33	37.73	7.91	5.72*
3	23A	13	36.85	24	29.83	7.02	3.54*

* Significant at the .01 level

First and second grade pupils scored significantly lower than the comparison group on comprehension of oral English. The objective related to end of primary and was attained by third grade program pupils, who scored significantly higher than the comparison group.

OBJECTIVE 2

Speaking: The pupil will use the basic speaking skills needed for correct pronunciation of English sounds (intonation, rhythm, and stress) while using standard grammatical forms and word order in everyday situations, as defined in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 10 and 11.

Classroom Procedure

In grades one and two, the Peabody Kit and Instant Reader (accompanied by a tape recording) were used in teaching oral English.

The third grade curriculum (with the exception of Spanish Language Arts) was presented in English only. The teacher found it necessary to use one language in order to establish and consolidate basic skills still lacking in the group.

Evaluation Procedure

Oral English was evaluated by a bilingual tester in Spring, 1972, using in-class test items. Pupils were observed in the classroom and tested in groups of five to seven in a game-like situation. In addition to dialogue with the pupil, the tester used a set of picture cards of familiar home and outdoor scenes to elicit oral responses which were rated on English pronunciation, word order, and grammar.

TABLE V

Primary Pupil Achievement of
English-Speaking Skills

	Number of Pupils	Percent Who Achieved Objective
Grade 1	24	83
Grade 2	33	79
Grade 3	14	100

Conclusion

By the end of primary (third grade), all pupils demonstrated the ability to use oral English. Spanish-dominant pupils were able to pronounce English consonant and vowel sounds correctly.

OBJECTIVE 3

Reading: The pupil will satisfactorily complete the English basic reader on Reading Level 8 or above. When given a choice of material at least one level below the last successfully completed basic reader, the pupil will read independently, as described in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 11 and 13.

Classroom Procedure

According to guidelines developed by teachers in December, 1970, pupils were to learn to read in their dominant language. Reading in Spanish for English-dominant pupils was to be introduced after the completion of Level 5 or higher in English. Reading in English for Spanish-dominant pupils was to be delayed until the pupil was functioning comfortably in English. Reading in the second language was to be delayed until basic understanding and speaking skills were learned. The team of the two first grade teachers chose not to adhere to the guidelines and introduced reading in both English and Spanish to all pupils during the first semester. During the second semester, they adhered to guidelines. The Ginn 100 and Ginn 360 were the basic readers.

Evaluation Procedure

Pupils were to be tested by the teacher with Ginn 360 Tests for Levels 1 - 10 on completion of each level after Level 3 to determine readiness for the next developmental level. Independent reading was to be assessed by the teacher. Pupil progress was noted on the Milwaukee Public Schools' reading record ("Milwaukee Public Schools Bilingual Elementary Program K-4", pages 14 to 19). At the end of the year, teachers reported the number of pupils at each English reading level.

Findings

Table VI shows the numbers of pupils at each English reading level. Progress is shown graphically in Figure 4 illustrating that the program group had a higher proportion of pupils at or above Level 8 in English reading at the end of third grade.

A "reading level" is a list of basic readers and supplementary books for independent reading. The Milwaukee Public Schools Primary Reading Record includes Levels 3 through 12.

TABLE VI

English Reading Levels of Bilingual Program
and Comparison Pupils, May, 1972

Grade Level	Total Number of Pupils	Percent of Pupils at Each Reading Level													
		Pre	1	2	3	4	5	6	7	8	9	10	11	12	4th grade
1 X	23		30		52		18								
1 C	35	3			29	51		17							
2 X	34 (two classes)				9	15	35	12	6	23					
2 C	34				3	23		15	29	15	12		3		
3 X	15						7			27	13		13	20	20
3 C	28					7	7	21	5		34	21	5		

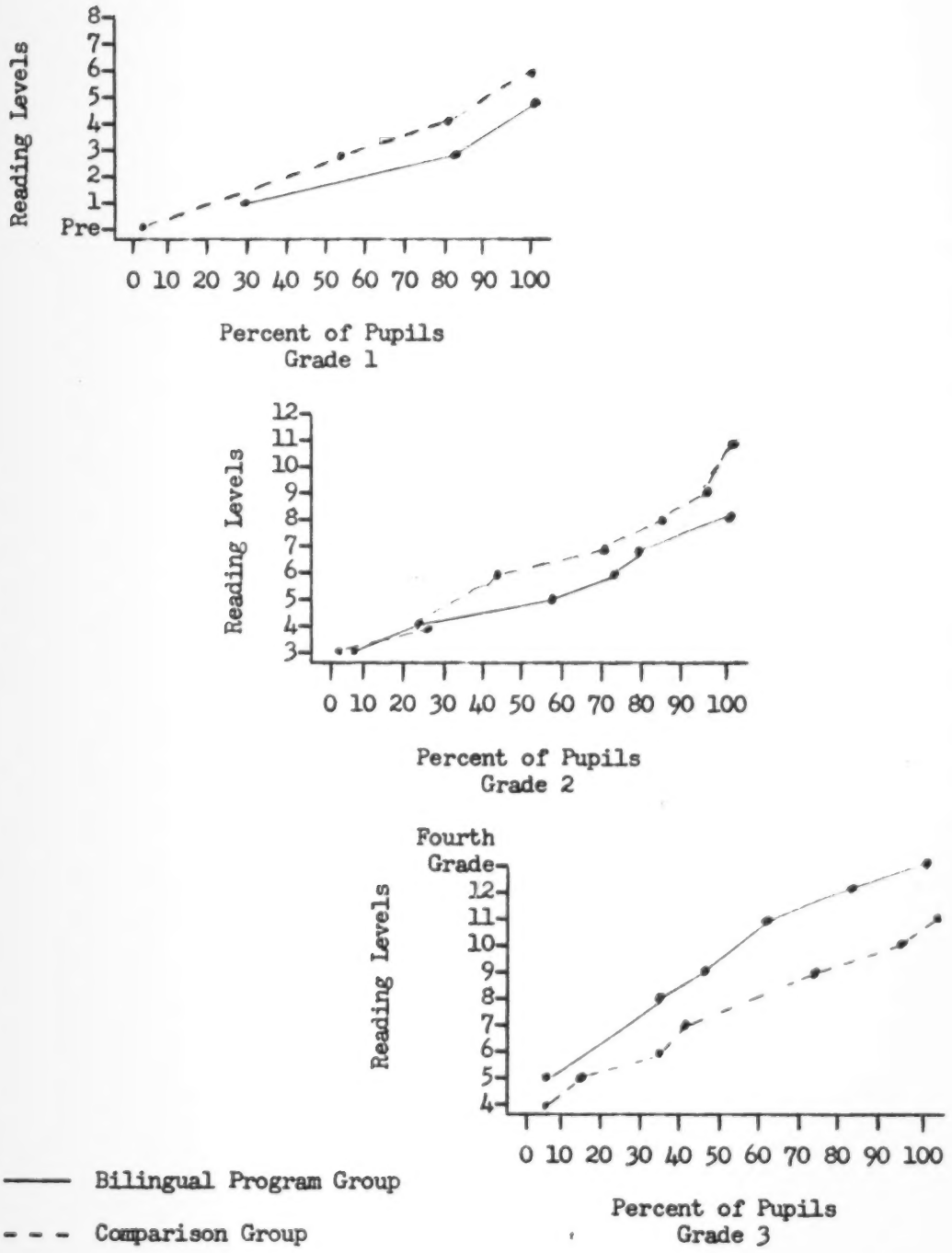


Figure 5. Cumulative Curves of Percent of Pupils at Respective English Reading Levels, Bilingual Program and Comparison Groups, May, 1972

Conclusion

Grade One:

The 83% of Bilingual Program first graders who ended the year at or below Level 3 (compared with 31% of the comparison group) may reflect some initial confusion from the simultaneous introduction to reading skills in two languages.

Grade Two:

The two second grades had a comparable range of English reading skills. The criterion (Level 8 or above) was achieved by 24% of program pupils and 29% of the comparison group.

Grade Three:

At the end of primary, 93% of Bilingual Program pupils and 64% of comparison pupils had reached the criterion reading level. The advanced progress of the Bilingual Program group may reflect an advantage in the initial teaching of reading skills in the dominant language for Spanish-speaking pupils. Some effect could have been due to the Bilingual Program's smaller class size and use of fewer books per level and/or teacher variables in the judgment of reading level achievement.

OBJECTIVE 4

Writing: When given assistance with spelling, the pupil will be able to write short, creative, or functional compositions using standard English punctuation and capitalization, as specified in "Milwaukee Public Schools Bilingual Elementary Program K-4", page 11.

Classroom Procedure

Manuscript was introduced in the first grade. At the second grade level, pupils wrote class compositions and individual stories. Writing sentences was stressed in third grade.

Evaluation Procedure

Achievement of in-class test items for writing objectives was assessed in Spring, 1972, at the third grade level by a check of pupil folders.

Findings

All 15 pupils wrote legible English manuscript. Standard English punctuation was used by 80%. Correct capitalization was used by 50%. These outcomes were not related to language dominance.

Conclusion

Pupils are ready to learn cursive writing.

SPANISH LANGUAGE ARTS

GOAL: The pupil will achieve the performance objectives listed below in understanding, speaking, reading, and writing standard Spanish by the time he completes the primary grades.

OBJECTIVE 1

Understanding: The pupil will acquire the basic listening skills needed to distinguish the sound contrasts of Spanish when spoken at normal speed in regular conversation and to comprehend what is being said, as described in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 80 to 84.

Classroom Procedure

Materials used included Kit 1, Language Arts Strand, Spanish Curricula Development Center. Grade one engaged in charting activities.

Evaluation Procedure

Comprehension of oral Spanish was evaluated in two ways:

1) Understanding was assessed in the Test of Comprehension and Use of Oral Spanish previously referred to in the kindergarten section (Appendix A) in which pupils were rated on their tape-recorded English or Spanish responses to Spanish statements about a series of pictures. Individual cassettes were used to record progress. The test was developed locally and based on in-class test items developed by the curricula and teaching staffs.

2) Comprehension of basic Spanish used by the teacher was evaluated by a bilingual tester. Pupils were tested in small groups using a "Simon Says" game situation. All primary Bilingual Program pupils were tested on Spanish Language Arts Objectives 1 through 3 requiring behavioral evidence of comprehension of everyday expressions, classroom directions, and classroom objects

and locations ("Milwaukee Public Schools Bilingual Elementary Program K-4", pages 81 to 84). Pupils at the end of third grade were assessed on all 19 objectives pertaining to comprehension of oral Spanish.

Findings

Results of the bilingual tester evaluation of comprehension of basic oral Spanish is shown in Table VII.

TABLE VII

Comprehension of Basic Spanish
Everyday Classroom Expressions and Directions
Grades One to Three

Grade Level	Number of Pupils	Percent Who Comprehended Greetings, Directions, Object Locations
1	21	87
2	25	89
3	18	94

The following proportion of third graders demonstrated understanding of additional Spanish expressions referring to:

Category	Percent Who Understood
Calendar	22
Clock Time	17
School Building	67
School Personnel	50
Science Expressions	72
Social Studies Expressions	44

The average score of 13 third grade pupils on the comprehension subtest of the tape-recorded test was 15.2 correct of a possible 21.

Conclusion

Daily exposure to the teacher's use of Spanish as the language of the classroom resulted in comprehension of basic expressions by the end of first grade. Many pupils did not understand other categories, especially time, by the end of third grade unless a specific effort had been made to teach them.

OBJECTIVE 2

Speaking: The pupil will acquire the basic speaking skills needed for correct pronunciation of Spanish sounds (intonation, rhythm, stress) while using standard grammatical forms and word order in everyday situations, as specified in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 80 to 104.

Classroom Procedure

Spanish was spoken daily. Except at the third grade level, where English was emphasized, curriculum components were presented in both Spanish and English, and pupils were expected to become familiarized with subject matter vocabulary in both languages.

Evaluation Procedure

The bilingual tester conversed with third graders to ascertain progress by the end of primary. Pupils were checked in small groups of two or three on specified test items. Ratings of tape-recorded responses to the Test of Comprehension and Use of Oral Spanish (Appendix A) furnished a second measure of speaking skills.

Findings

Seventeen pupils were rated by the bilingual tester. All of them successfully responded to simple questions regarding clothing, family, and animals. All imitated correct pronunciation. All were able to phrase a question with the correct word order. None of the 17 knew Spanish rhymes or songs, or the Spanish names for Latin-American or United States holidays. Three of the five English-dominant and two Spanish-dominant were unable orally to describe an experience, change a statement into a question, describe an object with a given cue adjective, or change positive statements into negative statements.

Thirteen third graders averaged 32.1 of a possible 56 points on the tape-recorded test. The standard deviation, 12.3, reflected a range from 14 for and English-dominant pupil to 56 by a Spanish-dominant pupil.

Conclusion

By the end of primary, Bilingual Program pupils had a usable Spanish vocabulary. About one-third of the class would require further experience in order to speak Spanish conversationally.

OBJECTIVE 3

Reading: The pupil will achieve the reading skills necessary to read Spanish Level 6 material.

Classroom Procedure

A variety of Spanish readers were used as they became available. In Spring, 1972, the teaching staff selected the most appropriate for ten reading levels (Appendix D).

The two first grade teachers presented both Spanish and English reading to all pupils for the first semester. As noted under English Language Arts, they found the method unsuccessful and returned to the guideline that pupils should be introduced to reading in their first language. Nine pupils were dropped from Spanish reading groups for the remainder of the year.

Second and third graders were taught in ungraded "team-taught" groups the first semester and then in self-contained classrooms based on reading levels.

Evaluation Procedure

Progress toward the objective was assessed by teacher reports of reading levels achieved by the end of the year.

Reading skills were assessed by the Guidance Testing Associates' Tests of Reading Spanish.

Findings

Year-end teacher reports of pupils at each reading level are shown in Table VIII and graphically in Figure 6.

TABLE VIII

Spanish Reading Levels of
Bilingual Program Pupils, May, 1972

Grade Level	Total Number of Pupils	Number Reading Spanish	Percent of Pupils at Each Reading Level									
			Pre	2	3	4	5	6	7	8	9	10
1	23	15		47	33	13	7					
2	34	34			3	3		32	41	15		6
3	15-21	16					6	38	19	19	18	

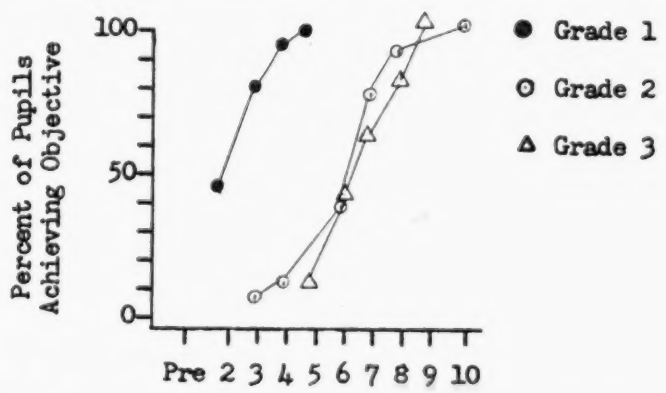


Figure 6. Cumulative Curves of Percents of Pupils at Respective Spanish Reading Levels, May, 1972

Table VIII and Figure 6 indicate that 94% of both second and third graders reached or exceeded the criterion, Level 6.

Spanish reading skills were assessed with Guidance Testing Associates' Tests of Reading Spanish, Forms L-1-CEs (80 items) and L-2-CEs (110 items). The score is the number of correct responses to multiple-choice items.

Scores on the Spanish reading test are shown in Tables IX and X.

TABLE IX

Mean Scores
Guidance Testing Associates' Tests of Reading Spanish
May, 1972

Grade Level	Number of Pupils				
		Vocabulary		Comprehension	Total
1	24	7.88		5.70	14.00
		Level	Speed	Vocabulary	Total
2	32	10.90	4.63	12.59	28.00
3	15	14.87	4.13	13.67	32.67

The Guidance Testing Associates' Spanish and English reading tests were designed to be equivalent. A comparison of group mean total scores in the two languages is shown in Table X.

TABLE X

Mean Total Scores of Bilingual Groups
on Equivalent English/Spanish Tests of Reading
May, 1972

Group	Number of Pupils	English	Number of Pupils	Spanish
Grade 1	16	15.94	24	14.00
Grade 2	33	26.79	32	28.00
Grade 3	9	69.78	15	32.67

Total scores reflected the learning of initial reading skills in the dominant language at first and second grade levels. The emphasis shifted to English reading at the third grade level.

Conclusion

The criterion reading levels were attained. English reading skills surpassed Spanish reading skills by the end of third grade. This finding matches Spanish parental desires for their childrens' abilities to function successfully within the dominant culture. Program goals aim for equivalent English and Spanish language skills by the end of sixth grade. The acquisition of Spanish reading skills is slower than English because, as in the study of other foreign languages, there is little, if any, exposure to written Spanish outside the classroom.

OBJECTIVE 4

Writing: The pupil will be able to express himself in writing through a short account of experiences or answers to questions using standard Spanish and punctuation, as specified in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 99 and 100.

Classroom Procedure

Starting at first grade, manuscript was used to write Spanish.

Evaluation Procedure

Written Spanish was evaluated at the end of primary. The bilingual tester reviewed classwork written in Spanish during the year.

Findings

All pupils had used criterion word order and language structures, pluralization, punctuation, and possessives.

Conclusion

Bilingual Program pupils were able to write in Spanish. Achievement of the objective was independent of language dominance.

MATHEMATICS

OBJECTIVES

Mathematics, Level 1

At the completion of the Level 1 mathematics program, the pupil will demonstrate his mastery of:

— addition and subtraction facts through sums of 10.

— place value through 99.

— rational counting through 99.

— reading time on the hour.

Mathematics, Level 2

At the completion of the Level 2 mathematics program, the pupil will demonstrate mastery of the following skills:

— addition and subtraction facts through 18

— place value through 999

— rational counting through 999

— adding and subtraction with two-, three-, and four-digit numbers without regrouping

— telling time to the hour and half-hour

Mathematics, Level 3

The pupil will demonstrate mastery of the following skills:

— read, write, and order numberals through 999,999

— solve addition and subtraction equations for sums through 18

— solve addition and subtraction examples with two-digit numerals (with and without regrouping)

— solve division equations using repeated subtraction, multiplication facts, sets, and the number line

— solve multiplication and division equations through products of 81

— use arbitrary, English, and metric units to measure length and area

— measure length to the nearest half inch

— identify odd and even numbers

— solve multiplication examples with two- and three-digit factors (with and without regrouping)

— solve division examples by subtracting

— identify equivalent fractions using visual aids

— apply mathematics operations in solving word problems

Classroom Procedure

The mathematics program was individualized and ungraded. The Addison-Wesley "Elementary School Mathematics" English and Spanish editions were used. Both languages were used in Levels 1 and 2. At Level 3, math was taught in English.

Evaluation Procedure

"Addison-Wesley Unit and Review Tests", at levels synchronized with the texts, provided formative feedback to teachers. The tests were translated into Spanish with the publisher's permission.

Formative Evaluation

A formative assessment was made by the evaluator at mid-semester (January, 1972). Teachers indicated the book and unit which had been covered by each pupil. Each was tested in his dominant language on the last unit completed. Pupils were tested in nine units at Level I, six at Level II, and one at Level III.

Findings

The elementary supervising teacher had estimated 70% to 80% correct response to the unit tests, as the tests had been covered previously. Actually, many items were missed by over 50% of the pupils, as shown in

Table XI. Those concepts which were the source of most errors were identified by the elementary supervising teacher (Appendix E). At a special workshop, she reviewed the problem areas and suggested strategies for eliciting concept comprehension.

TABLE XI

Results of Midyear Mathematics Tests
January, 1972

Addison-Wesley Book Level	Unit Test Number	Number of Pupils	Number of Questions Missed by 50% or More
	10 items each		
I	4	4	3
	5	6	2
	6	16	3
	7	4	3
	10 items each		
II	6	5	2
	7	6	2
	20 items		
III	2	14	4

Summative Evaluation

The elementary supervising teacher selected items from the "Unit and Review Tests" which related to the mastery objectives at levels one and

two. Level I had 34 items and Level II had 35 items. The published final review test for Level 3 (20 items) was judged an adequate review of Level 3 objectives. Classroom teachers indicated each pupil's progress. If a pupil was less than halfway through the text, he was given the test for the previous level.

Findings

The elementary supervising teacher estimated that pupils would have mastered at least 75% of the objectives at each level. The percents of pupils who did so are shown in Table XII.

TABLE XII

Percent of Primary Pupils
Who Achieved Mathematics Objectives

Addison-Wesley Math Levels	Grade One		Grade Two		Grade Three	
	Number of Pupils	Percent of Pupils Correct on at Least 75% of Test	Number of Pupils	Percent Correct on 75% of Test	Number of Pupils	Percent Correct on 75% of Test
I	23	17	13	23	1	100
II			18	22	18	89

The Level III test was given to ten third graders who had completed Chapter III, Book III. Scores ranged from 25% to 55% correct.

Conclusion

According to the elementary supervising teacher, the results indicate that pupils were "generally working at a low level in math".

SOCIAL STUDIES

GOAL: The pupil will acquire knowledge of the basic needs of families and the role of school in his life.

PERFORMANCE OBJECTIVE

The pupil will dictate and/or write charts and stories, participate in discussions, make booklets, and engage in fine art activities that reflect his progress toward the goal, as listed in "Milwaukee Public Schools Bilingual Elementary Program K-4", pages 47 to 57.

Classroom Procedure

Social studies instruction was given in the classroom by grade level (e.g., Level 1 at grade one). The course was integrated with language arts.

Evaluation Procedure

The bilingual tester conducted an informal assessment in May, 1972, by reviewing work compiled in pupils' booklets. Booklets were checked for evidence of the following studies:

Level 1

— Basic family needs
— Role of school in the pupil's life

Level 2

— Family living: food, clothing, shelter

Level 3

— Milwaukee: history, geography, ethnic groups, government, economics

Findings

There was evidence of criterion social studies work as follows:

— Eighty-seven percent of first graders completed drawings and descriptions of members of their families and their activities

-- Eighty-two percent of second graders had booklets including weather, seasons, clothing materials, food sources, household utensils, houses, and safety

-- Eighty-eight percent of third graders had books with reports on school occupation; reports on field trips to the museum, art center, airport, harbor, and zoo; group work on spring elections

Conclusion

Objectives of the social studies program were achieved.

SCIENCE

GOAL: The pupil will . . .

-- acquire a basic knowledge of the properties of objects, the process of the interaction among objects, and the growth and development of organisms in relation to their environment.

-- acquire skills in the processes of science: observing, describing, comparing, classifying, measuring, recording, and interpreting evidence and experimenting.

-- develop a disciplined curiosity.

PERFORMANCE OBJECTIVES

At the completion of the Material Objects Program, the pupil will demonstrate the ability to:

1) describe and classify objects by their properties.

2) compare properties of objects to understand serial ordering.

3) describe changes that may be brought about.

4) use observable evidence to support his conclusions.

Classroom Procedure

Science lessons were based on the Material Objects Unit from the Physical Science Section of the Science Curriculum Improvement Study (SCIS) Program, Rand McNally and Company. The program emphasizes manipulation of materials by pupils and was taught in English and Spanish.

Evaluation Procedure

The elementary supervising teacher devised a performance test (Appendix F) to evaluate the ability to apply discriminations learned in the SCIS Program. By March, 1972, second and third grade pupils had completed the program. At that time, pupils were tested on a 1 : 1 basis in groups of ten

or less by a bilingual tester and the elementary supervising teacher. Pupils were rated on ability to demonstrate achievement of the objectives.

Findings

The score was the number of correct responses to 13 tasks in four categories. Table XIII shows mean scores by class groups. The two second grade classes are designated "a" and "b".

TABLE XIII

Mean Scores of Bilingual Classes on a Performance Test for the SCIS Material Objects Science Program

Group	Number of Pupils	$\bar{x}$	SD
2a	15	7.47	2.33
2b	20	6.25	2.14
3	14	8.71	1.44

The two second grade group scores include pupils who entered after the Material Objects Program was completed. Eliminating the two pupils from Group 2a would change the number to 13 and the mean score to 7.85, an increase of 0.38. Eliminating the three pupils from Group 2b would change the number to 17 and the mean to 6.23, a decrease of 0.02. In this case, exposure to the program did not appear to affect test performance.

Table XIV shows the proportion of pupils who responded correctly to each component of the four activities.

TABLE XIV

Proportion of Correct Responses
to Science Test Items

Group	Number of Pupils	I Describe and Classify Objects by Properties					II	III Describe and Classify by Material			IV Match Like, Match in Different Forms, State Evidence			
		Classify by:												
		Name Property	Color	Size	Shape	Other	Arrange in Serial Order	Identify Property 1	Identify Property 2	Sort by Materials	Solves Problems	Solves with Hint	Solves with Suggestion	Operational Help Needed
2a	15	73	80	33	73	6	93	33	53	80	20	13	33	33
2b	20	85	55	5	100	0	80	35	50	45	5	10	55	30
3	14	79	100	43	79	14	79	36	64	93	29	21	50	0

Results were below the expectations of the supervising teacher, who had anticipated at least 80% correct response on all items following completion of the program.

Conclusion

The first phase of the SCIS Program was completed by second and third grades, which then made some headway with the Interaction and Systems Program. First graders completed Material Objects by year's end. None progressed to the Organisms Program. Despite the program lag and limited success evidenced by test results, the elementary supervising teacher believes that the program should be continued and that pupils will progress faster now that the program is established.

COMPARISONS

A similar class in the same school served as a comparison group for each Bilingual Program class. The school population was 70% Spanish-American. The proportion of Spanish-dominant Spanish-Americans was greater in the Bilingual Program. Classroom teachers furnished information in Table XV in May, 1972. Reference to the table shows that the bilingual and regular classes differed in factors other than the use of two languages by the Bilingual Program. Compared with the regular classes, the bilingual classes had fewer pupils and more non-English-speaking pupils; pupils were ungraded; and team teaching was used more. The Bilingual Program had fewer pupils and more teachers and aides in the following ratios:

	Pupil/Teacher Ratio	Pupil/Aide Ratio
Bilingual Program	13.7 : 1	19.2 : 1
Regular Program	30.4 : 1	45.6 : 1

Bilingual Program and regular groups were compared on performance on tests administered in English in the City-Wide and Special Testing Programs in Spring, 1972. These were the Metropolitan Readiness Tests, Form A, kindergarten; Cooperative Primary Tests, Form 12A, first and second grades and Form 23A, third grade; and Cognitive Abilities Test, second grade. Pupils who did not understand English were not tested.

Findings - Kindergarten

The kindergarten bilingual group was compared with the regular class on the Metropolitan Readiness Test in spring of each year. The subtests measure the development of pupil skills which "contribute to readiness for first grade instruction", according to the test manual.

TABLE XV

Elementary Population and Process
Program and Comparison Groups

	Bilingual Program						Comparison Groups				
	K	1	2a	2b	3	Total	K	1	2	3	Total
Number of Teachers	1	2	2	1	1	7	1	1	1	1	4
Number of Aides	1	1	1	1	1	5	¼	½	½	¼	1½
Number of Volunteers	0	1	0	0	0	1	0	0	0	0	0
Number of Pupils	22	23	20	16	15-21	102	40 (two classes)	35	34	28	137
Number of Non English-Speaking	4	7	3	6	0	20	0	2	0	0	2
Teaching Processes											
Semester 1:											
Self-Contained Classroom	x	x					x	x		x	
Ungraded		x	x	x	x						
Team Teaching		x	x	x	x						
Semester 2:											
Self-Contained Classroom	x	x	x	x	x		x	x	x	x	
Ungraded		x	x	x	x						
Team Teaching	x		x	x			x		x	x	
Other		Flexible Grouping						Extra Help			

x = Teaching process used

Previous Findings

In Spring, 1970, the comparison group scored higher than the bilingual kindergarten. In Spring, 1971, the bilingual kindergarten scored higher than the comparisons and both group means were at least 15 points higher than in 1970.

Current Findings

Scores for Spring, 1972, are shown in Table XVI.

TABLE XVI

Mean Scores on the
Metropolitan Readiness Test, Form A, of
Bilingual and Comparison Kindergarten Pupils
May, 1972

	Bilingual Group (N = 17)		Comparison Group (N = 19)	
	$\bar{x}$	SD	$\bar{x}$	SD
Word Meaning	7.24	2.36	7.10	1.97
Listening	10.71	2.05	8.32	2.64
Matching	9.35	2.17	6.53	2.72
Alphabet	12.35	4.73	8.00	3.75
Numbers	15.82	4.79	9.37	4.17
Copying	4.77	2.71	5.32	4.17
Total	60.23	12.99	44.11	14.53
	t = 3.49*			

* Significant at the .01 level

Overall performance by Bilingual Program pupils was significantly greater than the comparison group on the Metropolitan Readiness Test in spring.

There was no difference between the groups on the Guidance Testing Associates' Test of General Ability administered in Fall, 1971. The impressive gains of the program group probably reflect the initiation of an all-day kindergarten for the Bilingual Program which the bilingual teacher felt was a great advantage. The comparison group attended half days.

Boehm Test of Basic Concepts

Space, quantity, time, and miscellaneous concepts necessary for school achievement are included in the 50-item multiple-choice test.

Pupils were pretested in October, 1971, and posttested in May, 1972, with the English or Spanish form.

As shown in Table XVII, the difference between the two kindergartens was not statistically significant on the pre or posttest.

TABLE XVII

Mean Pre/Post Scores
Boehm Test of Basic Concepts
Bilingual Program and Comparison Kindergartens
October, 1971 - May, 1972

Group	Pre			Post		
	Number of Pupils	Mean Score	SD	Number of Pupils	Mean Score	SD
Bilingual	21	27.86	8.84	19	35.47	7.64
Regular	15	27.00	8.88	13	32.77	7.39
		t = .028			t = 1.00	

Conclusion

The Bilingual Program and comparison groups made approximately equivalent gains in basic concepts.

The concepts tested in the Boehm (e.g., top, inside, third) are closely related to arithmetic. The Metropolitan subtests were designed to measure "readiness", mainly in skills prerequisite to reading. The English-speaking kindergarten Bilingual Program pupils appeared to have developed more of the verbal "readiness" for first grade work than the half-day regular class.

Findings - Primary

Cooperative Primary Test

Grade One:

Results are shown in Table XVIII.

TABLE XVIII

Mean Scores on the
Cooperative Primary Tests, Form 12A, of
Bilingual and Comparison First Grade Pupils
May, 1972

	Bilingual (N = 16)	SD	Comparison (N = 32)	SD	t
Listening	27.56	6.21	35.38	8.90	3.14*
Mathematics	31.88	3.30	37.41	7.30	2.87*
Reading	8.44	3.33	22.38	5.79	8.90*

* Significant beyond the .01 level

The comparison group performance was superior in all tests. The "Word Analysis" test was not administered to the bilingual group and, therefore, is not included. The contrast in mean reading scores was extreme and could reflect confusion from learning to read in English and Spanish simultaneously at the beginning of bilingual first grade.

Grade Two:

Results are shown in Tables XIX and XX.

TABLE XIX

Mean Scores of Bilingual Program and Comparison Second Grade Pupils on the Cooperative Primary Test, Form 12A May, 1972

	Bilingual (N = 27)	SD	Comparison (N = 33)	SD	t
Listening	29.82	6.13	37.73	4.58	5.72*
Word Analysis	32.93	9.09	48.33	9.36	6.43*
Mathematics	33.56	9.01	46.00	5.01	6.77*
Reading	23.04	7.98	34.00	9.27	4.85*

* Significant at the .01 level

TABLE XX

Mean Scores of Bilingual Program and Comparison Second Grade Pupils on the Cognitive Abilities Test, Primary II, Form 1 May, 1972

	Bilingual (N = 27)	SD	Comparison (N = 33)	SD	t
Oral Vocabulary	8.19	3.18	13.58	3.87	5.82*
Relational Concepts	10.52	2.67	13.67	2.46	4.75*
Multi-Mental	11.04	3.55	13.46	3.09	2.82*
Quantitative Concepts	13.15	3.28	19.91	3.21	8.03*
Total	42.89	10.18	60.61	9.53	6.95*
Deviation IQ	76.78		98.82		

* Significant at the .01 level

Bilingual Program second graders scored lower on both the Cooperative Primary Tests and the Cognitive Abilities Test (CAT). The substantial difference in total scores on the CAT indicates that the bilingual group was behind in the "development of skills needed to master a wide variety of instructional content", which the test was designed to measure. Many educators have observed that standardized tests are biased in favor of the Anglo-American culture. It might also be observed that they thus represent the culture in which the pupil must survive and compete during most of his school career.

Grade Three:

Results for grade three are shown in Table XXI.

TABLE XXI

Mean Scores of Bilingual Program and Comparison Third Grade Pupils on the Cooperative Primary Tests, May, 1972

	Bilingual (N = 13)	SD	Comparison (N = 24)	SD	t
Listening	36.85	5.66	29.83	5.81	3.54*
Word Analysis	52.77	5.04	42.83	8.17	3.98*
Mathematics	40.46	5.84	29.17	5.65	5.74*
Reading	32.92	5.63	22.58	7.78	4.22*
Writing	42.77	5.07	27.63	7.31	6.33*

* Significant at the .01 level

In the Bilingual Program, there was a trend to a turn-around from low performance at second grade to high performance at third grade. This may

indicate a pattern in learning through a bilingual curriculum. Bilingual Program pupils scored higher on all subtests.

Tests of Reading English

Guidance Testing Associates' Tests of Reading English were administered to Bilingual Program and comparison groups in April, 1972. Results are shown in Tables XXII to XIV.

Grade One:

TABLE XXII

Mean Scores of First Grade Bilingual Program and Comparison Groups on the Guidance Testing Associates' Test of Reading English, Level 1

	Bilingual (N = 16)	SD	Comparison (N = 32)	SD	t
Vocabulary	9.56	6.13	17.44	6.19	4.21*
Comprehension	6.38	4.85	13.22	7.04	3.95*
Total	15.94	9.75	30.66	12.38	4.15*

* Significant beyond the .01 level

The comparison group started the first grade at a higher level on a test of general ability. At the end of the year, the comparison group showed greater achievement in English reading.

Grade Two:

Results for grade two are shown in Table XXIII.

TABLE XXIII

Mean Scores of Second Grade Bilingual Program and Comparison Pupils on the Guidance Testing Associates' Test of Reading English, Level 2

	Bilingual (N = 33)	SD	Comparison (N = 34)	SD	t
Level	10.82	5.57	15.03	5.79	3.03*
Speed	4.21	3.24	5.41	2.35	1.73
Vocabulary	11.79	7.44	19.79	7.09	4.56*
Total	26.79	13.58	39.94	13.65	3.95*

* Significant at the .01 level

The comparison group did not differ from the bilingual group in the Level 1 Guidance Testing Associates' Test of Reading English in September but demonstrated a higher level of reading skills than bilingual pupils near the end of the school year.

Grade Three:

The Level 2 test was given in September, 1971, and April, 1972. Results are shown in Table XXIV.

TABLE XXIV

Mean Scores of Bilingual and Comparison Third Grade Pupils on Guidance Testing Associates' Test of Reading English, Level 2, April, 1972

	Bilingual (N = 9)	SD	Comparison (N = 24)	SD	t
Level	27.89	6.40	16.50	5.97	4.68*
Speed	11.33	5.64	7.50	3.93	1.87
Vocabulary	30.56	4.62	23.75	7.61	3.12*
Total	69.78	14.72	47.75	15.90	3.61*

* Significant at the .01 level

The Bilingual Program third grade started the year with higher (but not statistically significant) mean scores and ended the year with better English reading skills than the comparison group.

Conclusion

Summarizing the overall picture for 1971-1972,

— kindergarten program and comparison pupils entered school at similar levels of concept development. By the end of the year, the bilingual group had acquired greater verbal "readiness" skills, which the teacher attributed to the full-day program.

— the first grade bilingual group was below the level of the comparison group.

— the second grade bilingual group was below the level of the regular class. Perhaps the slow assimilation of bilingual competencies was operating at first and second grade.

— third grade Bilingual Program pupils closed the gap and ended the year above grade level (as represented by the test scores of the regular class).

SECONDARY

Hispano-American Culture, Language, and History
United States History
Bilingual Reading
Personal Economics
Sociology

OVERALL GOALS OF THE SECONDARY PROGRAM

— To help students, through the process of inquiry, to improve their ability to generalize and to analyze values so that they can make intelligent decisions independently.

— To give Spanish-background students as well as English-dominant students an opportunity to help each other acquire skill in communicating each other's language.

— To provide the opportunity for newly-arrived, Spanish-background students to gain confidence as they learn subject content material in English - at the same time, their own Spanish language helps bridge the gap from one language to another.

OVERALL PROCEDURES

Courses were taught by bilingual Latin-Americans. Spanish and English were used in almost equal proportions in all but reading classes. There Spanish was used mainly as a tool for the teaching of English reading skills.

Curricula were modeled on course outlines in "Performance of Objectives for Bilingual Education Offerings at the Secondary Level". Bilingual reading was the only course which operated at Lincoln Jr-Sr High School.

EVALUATION

Evaluation was limited to two objectives for each course, as selected by program staff.

TABLE XXV

Total Secondary Population
by Grade, May, 1972

Grade Level	South Division	Lincoln
7	—	4
8	—	6
9	—	7
10	58	1
11	52	1
12	26	2
Total	136	21

TABLE XXVI

Secondary Population
by Subject Area

Grade Level	Hispano*	Reading		United States History*	Personal Economics*	Sociology*
		Lincoln	South			
7		4				
8		6				
9		7				
10	38	1	33	6		2
11	4	1	24	36	5	3
12	3	2	18	9	9	5
Total	45	21	65	51	14	10

* South Division only

Of the 26 seniors in the Bilingual Program, five graduated in January and 21 (of a total 50 Latins) graduated in June. Sixteen of the June graduates planned to attend college.

HISPANO-AMERICAN CULTURE, LANGUAGE, AND HISTORY

GOALS:

-- To help Spanish-background students achieve a positive sense of self-identity and pride as they develop bilingually and biculturally.

-- To help students obtain a better understanding of the background and contributions of Spanish-Americans to the United States.

-- To help Spanish-background students, who have little or no knowledge of United States History, to obtain an understanding of certain concepts of this history before they enroll in the United States History course.

CLASSROOM PROCEDURE

The class was taught bilingually. The teacher selected "The Latin Americans" by Cuña et al, MacMillan Co., as the most useful of many texts which were sampled during the year.

OBJECTIVE 1

The student will learn the content of Hispano-American Culture, Language, and History as shown in "Performance of Objectives for Bilingual Education Offerings at the Secondary Level" whether his language background is English or Spanish.

Evaluation Procedure

Nine "in-class test items" were selected by the teacher as a pre(October)-post(May) measure of achievement (Appendix G). Students took the test in their preferred language, Spanish or English.

Findings

Table XXVII indicates the percent correct on each question. Questions omitted from the posttest referred to material not covered during the year.

TABLE XXVII

Student Achievement in
Hispano-American Culture, Language, and History

Question Number	Percent of Pupils Who Responded Correctly	
	Pre(October) N = 14	Post(May) N = 7
1	14	—*
2	35	71
3	21	86
4	14	—*
5	7	—*
6	0	29
7	0	43
8	7	43
9	0	—*

* Not tested

Conclusion

The few who were tested at both the beginning and end of the year appear to have gained information about Latin-American history and culture. For the coming school year, course objectives and test items will be revised by the teacher and a vocabulary list will be developed. These and other modifications are expected to result in more effective teaching/learning transactions.

OBJECTIVE 2

The student will develop understanding and speaking skills in his second language as a result of exposure to both languages in the classroom.

Evaluation Procedure

In January, 1972, the Common Concepts Foreign Language Test (California Test Bureau) was administered in Spanish (Form 1) and English (Form 2) on alternate days to measure comprehension. The test was designed to evaluate comprehension of Spanish, French, or German. For this program, it was used for Spanish and English as second languages. The students' task was to identify the one of four pictures that matched a spoken sentence. Six training exercises preceeded 80 test sentences. The test was given to two U.S. History classes and one Hispano class. A retest in May was planned in order to determine gains in second language comprehension.

Findings

Fifty-one students were present both days and pretested in both languages. Seventy-eight percent of them (40) responded correctly to at least 90% (72) of the items in both Spanish and English. The posttest was limited to those who scored lower than 72 on one or both tests. Seven students were posttested (six in Spanish, one in English). Scores of four rose to at least 90% correct in both languages. Mean pre-post scores are shown in Table XXVIII. By the end of the year, 86% of students had at least 90% comprehension of oral English and Spanish, as evidenced by performance on the Common Concepts Foreign Language Test.

TABLE XXVIII

Pre/Post Mean Scores
Common Concepts Foreign Language Test

	Spanish (N = 6)	SD	English (N = 1)	SD
Pre	56.83	14.30	66.00	—
Post	64.67	17.92*	72.00	—

* Significant at the .05 level

Conclusion

Most students entered the Bilingual Program with good comprehension of spoken English and Spanish. Those who had little familiarity with the second language showed significant gains between January and May.

BILINGUAL UNITED STATES HISTORY

GOALS:

-- To provide continuity in bicultural instruction for those students who completed the Hispano-American Culture, Language, and History course the previous year.

-- To develop in the student an awareness, understanding, and appreciation of our American freedoms, and understanding of the responsibilities that derive from these freedoms, and a sense of obligation to practice them in daily life.

— To teach the concepts of history and government of the United States so that the students will be prepared for intelligent participation in our democratic society.

— To enable the student to interpret the present in the light of both the past and the present and to prepare for the future.

CLASSROOM PROCEDURE

Many texts were sampled. "Study Lessons in American History" by Abramowitz was adopted because it stressed vocabulary and concept building. The lessons were translated in Spanish by a Professor of Spanish Languages, Marquette University.

OBJECTIVE 1

Students enrolled in the bilingual U.S. History class will show as much American History achievement as students enrolled in the regular U.S. History classes as measured by a standardized test at the end of the year.

Evaluation Procedure

The social studies supervising teachers selected the Cooperative Social Studies American History Test, Senior High School, Form A, for use in evaluating this objective. These supervisors shortened the instrument to 50 items by dropping 20 items considered inappropriate. Permission to translate the

test into Spanish was granted by Educational Testing Service. A Latin-American professor of Spanish, Marquette University, was the translator.

A comparison group was drawn from a list of Spanish-surname 11th grade students enrolled in regular U.S. History classes at South Division. The list was furnished by a Latin-American vice-principal at the school and reviewed by the Supervising Teacher. The test was administered on the same day to the comparison group and to bilingual U.S. History classes. Students selected the English or Spanish form.

Findings

The score was the total number correct on the 50-item test. As shown in Table XXIX, both groups demonstrated low levels of performance. The comparison group mean score was 3.27 higher than the bilingual class, a statistically significant difference.

TABLE XXIX

A Comparison of American History Test Scores
Between Bilingual and Comparison Groups, May, 1972

Group	Number of Pupils	Mean Score	SD
Bilingual	37	15.38	4.84
Comparison	23	18.65	4.32
		t = 2.72*	

* Significant at the .05 level

Conclusion

The objective was not met. In fact, students in the bilingual U.S. History class actually scored lower than students in the regular U.S. History classes.

The social studies supervising teachers suggested that the lower scores of the Bilingual Program group might reflect a lack of training in the skills of interpretation and generalization. The bilingual U.S. History teacher thought the results could be attributed partly to initial disorganization at the beginning of the year, prior to obtaining a text and course outline. He plans to modify the course as a result of the test outcome. It must be remembered that, although the comparison group was matched as closely as possible to the bilingual, language differences existed: 11% of bilingual and 83% of comparison classes were English-dominant; 72% bilingual and 17% comparison were bilingual; 17% bilingual and 0% of the comparison classes were Spanish-dominant. Because students were not randomly assigned, whatever variable(s) that caused their selection of bilingual or regular U.S. History classes operated to distinguish them as different populations. As an explanation of this, it is suggested that the comparison group, though Spanish-surnamed, had more second and third generation people who had a lifetime acquaintance with this country's history.

OBJECTIVE 2

The student will develop understanding and speaking skills in his second language as a result of exposure to both languages in the classroom.

Evaluation Procedure

The Common Concepts Foreign Language Test was administered in January, 1972, in Spanish (Form 1) and English (Form 2) as a pretest assessment of comprehension in both languages of bilingual social studies students. Results revealed that most of them had at least 90% bilingual comprehension (scored 72 or above on both the Spanish and English 80-item tests) as reported in the previous section. No further information would have been obtained by post-testing those 40 students. Instead, a test of curriculum vocabulary was substituted. A pool list of 166 English words used in the U.S. History curriculum was obtained. Thirty were then selected (every fifth word) for inclusion in the test. This year-end test required students to match each word with the appropriate definition, written by the history teacher.

Findings

Thirty-nine students averaged 20.23 correct on the 30-item test.

Conclusion

The class demonstrated acquisition of English vocabulary related to U.S. History.

BILINGUAL READING COURSE

GOALS:

-- To assist subject content teachers to improve the reading achievement of Spanish-background students.

-- To assist Spanish-background students to overcome reading and study difficulties in English, to improve their reading ability, and to read the specialized language of subject content areas.

-- To assist Spanish-background students more effectively by close cooperation of the Bilingual Reading Specialist with subject content teachers, especially the following: English as a Second Language; Hispano-American Culture, Language, and History (bilingual subject); U.S. History (bilingual subject); and Spanish(S) (designed for Spanish-background students).

CLASSROOM PROCEDURE

Individualized instruction was provided in an effort to elevate the students' level of English reading ability. Students elected the course or were recommended by subject content teachers. There were five bilingual reading classes at South Division. In addition, program or non-program students could go to the bilingual reading center for extra help during their study halls. Fifteen volunteer Spanish-American students, who attended the University of Wisconsin-Milwaukee, provided the extra help for approximately 60 South Division students per week.

There were two bilingual reading classes in the morning at Lincoln High School. The bilingual reading teacher spent the afternoon helping her counterpart at South Division.

OBJECTIVE 1

Secondary students will gain at least one English reading level on a pre-post test after two semesters in a bilingual reading class.

Evaluation Procedure

The Nelson Reading Test was administered in September (Form A) and May (Form B) by the bilingual tester. The test has 100 vocabulary items and 75 paragraph items to measure comprehension.

Findings

Results shown in Table XXX indicate a two-month reading gain at South Division and a four-month gain at Lincoln High School.

TABLE XXX

Gains in Reading Achievement of
South Division and Lincoln High School Bilingual Students
as Measured by the Nelson Reading Test

School	Number of Pupils	Grade Equivalent Pre	Post	Gain
South Division	36	5.8	6.0	0.2*
Lincoln	7	4.4	4.8	0.4*

* Did not meet objective of one-year gain

Conclusion

The objective gain of "at least one grade level" was not achieved at either school, as specified in the objective. The groups ended the year near last year's posttest grade equivalents on the Nelson Reading Test (4.5 - Lincoln, 6.1 - South Division) but showed less improvement. Since pre-post gains have not reached the equivalent of one grade level in the three years of the program, a more realistic criterion might be in order.

PERSONAL ECONOMICS

GOALS:

— To understand the nature of our economic system and the techniques used in functioning economically.

— To learn a number of concepts essential to an understanding of some of the more important economic problems facing a consumer in contemporary society.

— To develop competence in referring to available materials, public agencies, economic principles, and other aids which will enable the student to make practical economic decisions.

— To develop skill in personal decision-making and evaluation of alternative choices through the use of objective analysis.

CLASSROOM PROCEDURE

Personal Economics was a pilot course in some Milwaukee Public Schools. The Bilingual Program staff translated and adapted the course outline for a one-semester offering to alternate with bilingual sociology.

OBJECTIVE 1

Given a problem in which a family has insufficient funds to pay for living expenses, the student will be able to cite at least three community agencies likely to be of assistance.

Evaluation Procedure

The pre(September, 1971)-post(January, 1972) ten-item test included this question: "Joe was just laid off. He does not have any money saved to support his family while he finds a job. Which three community agencies could help him?". As shown in Table XXXI, of the six who took both the pre and posttest, the percentage who met the criterion rose from 17% to 66%. At the end of the course, 54% of the total class membership met the criterion.

OBJECTIVE 2

The student will be able to enumerate at least three advantages of consumer credit.

Evaluation Procedure

The test included the item: "List four advantages and four disadvantages in the use of credit".

Findings

The six students who were pre and posttested could not cite three advantages or disadvantages of consumer credit at the start of the course but 66% of them had success at the end. At least three-fourths of the total class membership had become aware of credit risks and advantages by the end of the course, as shown in Table XXXI.

TABLE XXXI

Student Attainment of Personal Economics Objectives

Percent of students who cited . . .	Pre N = 6	Post N = 6	Total Post N = 13
three community agencies.	17	66	54
three advantages of the use of credit.	0	66	84
three disadvantages of the use of credit.	0	66	76

At the end of the posttest, students were asked to grade the course and the teachers. Ten students responded with four A's, three B's, and three C's for the course, and eight A's and two B's for the teachers. Student suggestions for improvement included more field trips, only one teacher, and a

different textbook.

The social studies supervising teacher reported that he visited the class on two occasions to talk with students about the course. He found a "very positive overall attitude" toward the course content because of its relevance. For instance, a student married couple shopped for furniture by using their field trip experience to find out about credit arrangements, payments, and quality. A field trip on how to buy a used car resulted in the sale of the car to a teacher. During the course, class members evidenced spontaneous interest when President Nixon announced wage/price guidelines by requesting information on how the guidelines would affect them. Students also reported that their Spanish-speaking parents benefitted by shopping with them.

Conclusion

Considerable progress was made in learning to consider feasible alternatives in the best use of personal income.

BILINGUAL SOCIOLOGY

GOALS:

Nine goals emphasized societal influence on Spanish-Americans, techniques of leadership, language usage, and personal and societal goals.

CLASSROOM PROCEDURE

A non-project high school social studies teacher was employed to design the bilingual sociology course. He furnished goals and objectives, a course outline, and suggested materials which were reviewed and accepted as amended by the bilingual staff. Two teachers taught on alternate days.

OBJECTIVE 1

Students will be more aware of the nature of the problems facing our society and of the range of options available to deal with them.

Evaluation Procedure

The course designer submitted 27 multiple-choice achievement test items. The teachers selected ten items for a pre(January, 1972)-post(May, 1972) test.

Findings

The score was the number correct. The results shown in Table XXXII indicate that 54% more of the students answered one-half or more of the items correctly on the post than on the pretest.

TABLE XXXII

Pre/Post Student Achievement
on Sociology Test

Number of Items Answered Correctly	Percent of Pupils Who Responded Correctly	
	Pre N = 11	Post N = 7
0 - 2	9	14
3 - 5	73	14
6 - 8	18	43
9 - 10	0	29

Conclusion

The objective was attained.

COMPARISONS

Results of the City-Wide Testing Program were used to compare Bilingual Program students with other groups. Students were tested at the tenth grade level with the Lorge-Thorndike Intelligence Test (L-T) and the Tests of Academic Progress (TAP).

Previous Findings

On the Lorge-Thorndike in 1969 and 1970, both the bilingual and comparison (Latin-American tenth graders not in the program) groups averaged nine to 11 points lower than the school mean and 15 to 17 points lower on the city-wide mean.

On the Tests of Academic Progress in 1969, the bilingual group standard scores were six to 12 points lower than school and city-wide scores in science and reading, and two to six points higher in math. In 1970, the bilingual group did as well as the school and city standard scores.

Current Findings

Results of the city-wide assessment of tenth grade students are shown in Table XXXIII which indicates average scores for the South Division bilingual and comparison groups, the school, and the city. Latin-American students in the regular school program were the comparison group.

TABLE XXXIII

Comparisons of Tenth Grade Bilingual Program Students
with Other Groups on Standardized Tests
Fall, 1971

Group	Number of Pupils	Lorge-Thorndike Mean IQ	Number of Pupils	Tests of Academic Progress Mean Standard Scores		
				Science	Reading	Mathematics
Bilingual	25	84.7	23	37.7	36.4	35.3
Comparison	15	86.8	15	34.5	36.1	35.7
School	604	95.1	592	41.9	39.6	38.3
City-Wide	8,970	100.2	8,259-8,930	45.4	43.1	43.2

Bilingual and comparison groups showed similar levels of aptitude and academic progress. Both groups ranked below their school and city-wide peers. The gap in IQ scores repeated previous findings indicating that Latin-Americans entered high school with less of the "abstract intelligence" measured by the test (according to the Lorge-Thorndike Technical Manual) in terms of English verbal symbols. Because students entered the school at tenth grade and were tested in fall, the findings are baseline data and do not reflect results of participation in the Bilingual Program.

TUTORIAL PROGRAM

GOAL: To help Spanish-background students succeed in subject content courses and to improve their attitude towards school.

CLASSROOM PROCEDURE

Bilingual students with a B average or better in the subject content area will tutor other Spanish-background students who need extra help. The Bilingual Reading Specialist will be assigned supervisory responsibilities for the tutoring program.

OBJECTIVES

- Students being tutored will improve the quality of work in the subject.
- Students being tutored will show improvement in school attendance and class participation.

Evaluation Procedure

The first objective was to be assessed by comparison of pre/post ratings by the referring teacher on a Classroom Teacher Rating of Student Work and Attitude (Appendix H).

Findings

The Tutorial Program did not get underway until the end of the year. However, in response to the year-end questionnaire by 79 students, 54% said they would be interested in getting help with schoolwork from a tutor and 70% said they would be interested in being a paid tutor.

An alternative tutorial program operated during the year. Ten Latin-American students from the University of Wisconsin-Milwaukee tutored South Division students who needed extra help. Each college student tutored for three hours per week to receive credit for field experience in the School of

Education.

Conclusion

The Tutorial Program should be continued in 1972-1973.

MEASURES OF STUDENT ATTITUDE

The Scholastic Testing Service "Youth Inventory" was administered to Bilingual Program secondary social studies classes in November, 1971. The classes were "Hispano-American History, Language, and Culture" and "United States History". The instrument has 167 statements in five categories. The students indicate, by marking one of four boxes for each statement, whether it is his most serious problem, a moderate problem, a small problem, or is of no concern. The Inventory is printed in English and Spanish forms. The 63 students selected the language form of their choice. Because the questionnaire was given during a single homeroom period, not all students had sufficient time to complete it. Those statements most frequently selected as serious problems are indicated in Table XXXIV.

TABLE XXXIV

"Most Serious Problems" as Rated on the STS Youth Inventory

Category	Statement Rated a Most Serious Problem	Percent of Students Who Selected This Statement (N = 63)
My School	I want to take some courses that will get me ready for a job.	65
After High School???	What should I do after I finish high school?	57
About Myself	I need a parttime job.	56
Getting Along With Others	I need money for social affairs.	37
Things in General	I'm worried about war.	38

There are 36 statements in the category, "My School". All except two deal with course work, teachers, or study skills. The two exceptions deal with vocational training and were selected as the major concerns by the Bilingual Program students. Employment was also rated a major problem in the category, "After High School???", although over 60% of the statements concern college or the Armed Forces. In this category, students worried most about identification of job opportunities and availability of jobs to high school graduates. Bilingual teachers and student advisors asked to interpret the concern about work training related to student concerns about economic conditions which resulted in loss of parents' jobs and a scarcity of opportunities for parttime student employment.

In the category, "About Myself", one-third again identified "I need a part-time job" as the major concern. In the 1969 administration of the Youth Inventory, employment was not the greatest concern of most pupils whose worries centered on taking tests and making mistakes.

The need for money was the greatest concern for the category, "Getting Along With Others". In Fall, 1969, the most frequent problems were "It bothers me that some people are left out of things" and "Many people have the wrong idea about me".

Worry about war was of the greatest general concern. One-third also worried about race prejudice and poverty. By contrast, in 1969, students were more interested in personal problems.

The instrument was validated in a factor analysis by Wisconsin Information Systems for Education, University of Wisconsin. Responses to items clustered into five categories were roughly analagous to those isolated for the norm group.

The Youth Inventory was also administered to a group of 25 tenth grade Spanish-American students who were not enrolled in Bilingual Program classes.

Their responses were compared with those of the 28 tenth grade students from the Bilingual Program group. Table XXXV shows the statements rated most frequently as serious problems by the tenth grade bilingual and comparison students. Some students did not have time to complete the last two categories. The percent of response refers to the percent of those who responded.

TABLE XXXV

Statements of the STS Youth Inventory
Rated "Most Serious Problems" by Tenth Grade
Bilingual Program and Comparison Students
November, 1971

Category	Statement	Percent of Students Who Selected This Statement	
		Bilingual (N = 28)	Comparison (N = 25)
My School	I worry about getting good grades.	39	60
	I want to take some courses that will get me ready for a job.	71	44
After High School???	What kinds of jobs are open to high school graduates?	61	56
About Myself	I need a parttime job.	57	63
Getting Along With Others	I want to make new friends.	46	8
	I need money for social affairs.	28	43
Things in General	Is there something I can do about race prejudice?	35	45
	I'm disturbed about poverty and hunger in the world.	54	0

At the tenth grade level, jobs were the main concern of the Spanish-American students, whereas grades caused the greatest worry for those in regular classes. The priority of making new friends for bilinguals was of no concern to other tenth graders whose worries centered mainly on getting spending money for social events. Both groups indicated a desire to become involved in extinguishing race prejudice.

Conclusion

Job opportunities and job training emerged as the major concerns of Spanish-American high school students. This information led to the planning and implementation of a work/study program for Latin students at South Division High School.

STUDENT OPINION

In May, 1972, Bilingual Program secondary students completed a questionnaire (Appendix I) designed to feed back information for program planning. Administrative and teaching staffs contributed the items for the questionnaire. Responses were anonymous. At South Division High School, 82 students completed questionnaires. Of these, 13 did not indicate their grade level. Eleven Lincoln High School students in the Bilingual Reading Program responded.

Findings

Combining both schools, half of the respondents were English-dominant and half Spanish-dominant. The majority were interested in improving reading and speaking skills in their second language. They spoke Spanish most often at home. The majority felt the most important program components were bilingual learning and a bilingual teacher. Learning about Latin culture ranked next with South Division students. Lincoln Latins felt that being with understanding classmates was more important. Those factors out-ranked instruction by a Spanish-American teacher. Sixty-one percent had recommended the program to others. As a result of the Bilingual Program, over 50% reported greater pride in their Spanish heritage, and improved speaking and reading abilities in their second languages. Sixty-four percent had consulted with the student advisor and most of those reported they had been helped. Fifty-seven percent indicated an interest in receiving tutorial help, and 66% indicated they would like to be paid tutors. The most numerous suggestions for program improvement were for more bilingual courses (mathematics, English, science) by 14 students, and more Spanish-American teachers by 13 students. Three requested more Spanish-American counselors, two wanted more field trips and more books about Latin countries. Seven made

affirmative statements labeling the program "good", "superb", etc.

Conclusion

The students in the program endorsed it, and 14% requested its expansion to other curriculum areas.

STAFF OUTCOMES

ELEMENTARY STAFF OBJECTIVES

OBJECTIVE 1

Teachers will develop and implement guidelines for working as a team in the primary grades.

Evaluation Procedure

The primary teachers questionnaire (Appendix J) requested a status of the accomplishment of program objectives, based on experience during the year.

Findings

Six of the seven teachers responded to the questionnaire. Operationally, the primary staff developed a team-teaching schedule which was followed during first semester and abandoned (except for social studies and science) the second semester to save "time lost by pupil movement". Also, the staff was unable to find sufficient time to coordinate the necessary planning.

All but the kindergarten teacher had participated in team planning and teaching. The following suggestions were made by teaching staff members:

For improved selection of materials,

— examine materials before ordering.

— meet with the person authorized to approve orders.

— discuss and review materials in regular staff meetings.

For team teaching,

— use open classrooms with curriculum "centers".

— provide more time for team planning.

— orient the program more toward pupils.

— team-teach reading and math to avoid duplication of ability-level groups.

— increase the use of resources offered by bilingual resource person.

Administrators at the school and Central Office indicated that frequent shifts in teaching methods and techniques was a source of confusion.

Conclusion

Responses indicate that the team teaching program was too complex for teachers alone to implement. Consultation with supervisory and/or administrative personnel could have provided expert and experienced guidance toward successful teaming.

OBJECTIVE 2

The Bilingual Program at Vieau School will be improved and strengthened through the addition of the Bilingual Resource Specialist.

Evaluation Procedure

Staff noted improvements as part of the questionnaire.

Findings

Eighty percent of the teachers indicated that provision of a Bilingual Resource Specialist resulted in notable improvement in:

— locating materials.

— receiving information on new developments in bilingual education.

— placing orders for books and materials.

— the development of a bilingual materials section in the resource center.

Sixty percent noted "a little improvement" in obtaining supportive services such as a psychologist, social worker, or reading specialist. Some school and Central Office administrators found that the Bilingual Resource Specialist improved bilingual staff communication and morals.

Conclusion

The Bilingual Resource Specialist strengthened the program by expediting the selection, ordering, and organization of materials. The position provided a pivot for curriculum information and materials and, as such, improved morale and communication among the program staff. The administrative staff offered suggestions for broadening the services of the bilingual resource teacher to make her available as a resource person to the entire school.

The resource specialist also participated in program evaluation by testing pupils individually for the tape-recorded Spanish Oral Language Test.

OBJECTIVE 3

The teaching staff will use and evaluate Spanish Curriculum Development Center (SCDC) materials and submit a critique of SCDC materials.

Evaluation Procedure

Staff members reported, via the questionnaire, on participation in SCDC.

Findings

Spanish materials were used and evaluated in kindergarten (fine arts) and first grade (science, mathematics, social studies, Spanish vernacular and Spanish as a second language).

Conclusion

The Milwaukee bilingual education staff fulfilled its commitment to the Spanish Curriculum Development Center in Dade County, Florida.

Suggestions

Elementary teaching staff members suggested, via the questionnaire, that the program provide:

— a reading specialist, an art specialist, and a materials specialist.

— continuation of the ungraded program.

— a staff meeting agenda oriented toward materials.

— alternative Mexican/Puerto Rican words for standardized Spanish tests.

SECONDARY STAFF OBJECTIVES

OBJECTIVE 1

Student advisors will help Spanish-background students with individual problems.

Advisory Activities

There was one fulltime bilingual Spanish-American student advisor at South Division High School assisted by two part-time advisors (one woman and one man). Lincoln High School had one fulltime student advisor and one part-time person who divided his time between the two schools. Being paraprofessionals, they worked closely with the school guidance counselors. Their activities were reported weekly to the Project Director. As an example, activities reported by the fulltime student advisors in March, 1972, have been tallied below:

Tally of Student Advisor Activities
During the Month of March, 1972

	South Division	Lincoln
Number of students assisted	117	143
Number of new students oriented	20	11
Group meetings with Spanish students	4	29
Group parent/student meetings	10	3
Job opportunities meetings (industry)	2	0
College representatives meetings	3	3
Students encouraged to continue Spanish	8	All of the time
Students encouraged in Spanish business education	3	All of the time
Homes visited	21	43

	South Division	Lincoln
Homes telephoned	26	74
Number of times Spanish spoken	66	Most of the time
Numbers informed of adult education	3	82
Community agencies contacted	6	17
Contacts with social worker, doctor, nurse	13	57
Interpreter for school staff	11	39
Help to Hispano teacher	13	14
Help to ESL teacher	1	27
Help to guidance director	1	47
Help staff understand Latin culture	2	As often as possible
Help guidance director with programming	0	13

Evaluation Procedure

Questionnaires to students and bilingual staff members asked about the usefullness of student advisors.

Findings

Of 85 secondary students queried,

— 29% never went to the student advisor.

— 38% went one to five times.

— 12% went five to ten times.

— 21% went more than ten times.

Of 69 who answered, "If you went, did you get help from the student advisor?",

— 83% did.

— 17% did not.

The five secondary teachers reported that student advisors provided reference data, solved student problems, linked school and home, and supported teacher disciplinary action.

Conclusion

Student advisors filled a need for the Bilingual Program, school administration, and staff. They aided Latin-American students who required guidance from an adult of similar background and language.

OBJECTIVE 2

Teachers will initiate and develop the Tutorial Program for Spanish-background students.

Evaluation Procedure

Informal interviews were held with staff members.

Findings

Tutorial Program guidelines were developed. A rating scale for the referring teacher was designed as an evaluation instrument (Appendix H). However, other priorities delayed the implementation of the program until the end of the year. Staff members want to continue and expand the program in 1972-1973.

Additional Secondary Staff Feedback

The secondary staff questionnaire furnished the following information, based on teacher experience. Compared with Latin-American students in past years,

- students enrolled in bilingual courses were more interested in continuing education, had greater pride in their heritage, participated more in extra-curricular and intramural activities; were more content with school, more interested in their background, more at ease in speaking Spanish, did better school work, and had a more positive self-image.
- the relationship of Spanish-heritage students with other ethnic groups appeared to have improved at South Division (largely white) but not at Lincoln (largely black).
- Staff members not involved in the program were described as varying from cooperative and appreciative to resentful or unaware of its aims.
- Major staff accomplishments were the encouragement of increased college enrollments by students, parent contacts, and acceptance by the school faculty.
- Major staff problems were poor communication with non-bilingual staff, lack of time, poor facilities, student resistance, and poor study habits.
- Staff members' suggestions for the program included its extension to cover needs of all Latin students, an additional reading specialist and other

personnel, more help by supervisors; more inservice time for preparation, consultation, and evaluation; and limited class visitations.

— Suggestions for evaluation included collection of more data on student attitudes and the frequent administration of reading tests.

PROGRAM EVALUATION BY ADMINISTRATORS

Ten administrative staff members who had worked closely with the Bilingual Program responded to a questionnaire which posed open-ended queries. Items were suggested by the Project Director who intended to use the feedback information in program planning. The ten administrators included the Project Director, Project Coordinator, high school principal and guidance director, elementary school principal and vice-principal, and four supervising teachers.

The topics and general nature of their comments were:

How has the Bilingual Program helped instruction?

- Spanish-dominant pupils are happier, better adjusted, have more positive attitudes and better self-image. This may not be true for English-dominant.
- Language barriers were removed.
- Pupils have better rapport with Latin teachers.
- Performance objectives were developed.
- Teacher training was provided.
- Spanish-dominant pupils can learn reading skills in a familiar language and then transfer to English.

What problems have you had with the Bilingual Program?

Elementary:

- Need for growth in professional attitudes.
- Deviations from instructional objectives and teaching guidelines without administrative and supervising staff discussion.
- Need for better communication with other school staff.
- Need for teachers and supervisory staff to synchronize cooperatively the instructional activities with the curriculum.
- Materials ordered without preview did not always coincide with program goals and student needs.

— Need to acknowledge budget limitations.

Secondary:

-- Problems with the effective expansion of student advisor services.

-- Enrollment in the program of many students who would benefit.

Is the Bilingual Program well integrated into the school structure rather than a program unto itself?

— Only at the kindergarten and secondary levels.

— The bilingual elementary staff was distinguished from school staff by having separate meetings, convention allowances, smaller classes, more aides, and a unique curriculum.

Did aides fill an essential role in the program?

— Yes, in working with pupils and helping teachers.

Has the community liaison person provided you with information about the needs and concerns of the Spanish community?

— Yes (Response described in section on Parent-Community Objectives)

Would you recommend the establishment of a bilingual program to the principal of a similar school?

— (7) "Yes" unqualified.

— (3) "Yes", if needed and desired, and if qualified teachers were available.

How would you lower the cost per pupil to make it possible for other schools to support bilingual programs?

— Increase the pupil/teacher ratio.

— Use parents to help in classrooms.

— Employ student teachers and interns.

— Limit the team to five teachers for grades one to four.

— Employ fewer specialists.

— Purchase less commercial material and make better use of basic materials.

— Eliminate funded travel, field trips, and tuition for teachers.

What changes would you recommend for the existing program?

Elementary:

— Implement student/teacher and parent help in classroom.

— Define team teaching and monitoring processes.

— Establish more openness and flexibility in classrooms.

— Develop guidelines for the application of Spanish and English to the curriculum.

— Improve staff communication with school and Central Office administration, especially on proposed program changes.

— Organize materials for easy teacher access.

— Establish guidelines for pupil participation in the program.

— Interpret the program to the school staff and share materials with them.

— Encourage pupil independence in work tasks, less reliance on help of aides.

Secondary:

— Encourage closer liaison of teachers in the Bilingual Program with Spanish teachers.

— Establish an advisory committee for South Division.

— Expand the program.

— Build a strong bilingual program at the elementary level for improved inter-ethnic fellowship among secondary students.

Has the addition of a Bilingual Resource Specialist at Vieau resulted in increased communication with the teaching staff, better inservice training, improved curriculum development, improved school staff morale, and improved bilingual staff morale?

— Several respondents noted improved staff communication and bilingual staff morale. Inservice training, curriculum development, and school staff morale were not reported to be affected by the new position.

PARENT-COMMUNITY OUTCOMES

PARENT-COMMUNITY OBJECTIVES

OBJECTIVE 1

Parents, agencies, and community members will receive periodic information about the Milwaukee Bilingual Education Program.

Evaluation Procedure

A parent questionnaire sought feedback about the English/Spanish "Bilingual Bulletin" newsletter which was published four times during the school year.

Findings

Of ten English respondents, 30% had read it and 70% had not. Of 33 Spanish respondents, 57% had read it and 43% had not. Most of those who had not read it had not received it. It was distributed to pupils at school, the Puerto Rican Center, Spanish Center, United Migrant Opportunity Service, Community Employment Program, interested schools, and teachers.

Conclusion

Information about the program was distributed regularly through the "Bilingual Bulletin" but often was not received by community parents. The method of distribution to parents needs to be revised.

OBJECTIVE 2

The community liaison person will provide more information involving the needs and concerns of the Spanish community.

Evaluation Procedure

The teaching, administrative, and parent questionnaires asked about information provided by the community liaison person.

Findings

The community liaison person served:

— the teaching staff by checking on pupil absence and providing parent response to pupil problems.

— administrators on community concerns. The information was useful but limited. They suggested that reports be prompt, specific, and in writing.

— parents by informing them of meetings, providing transportation to meetings, interpreting at school and agencies, and reporting pupils' school problems.

Conclusion

The community liaison person linked the pupil and his family to the school and agencies. This service probably furthered the goal of pupil continuation in school.

Additional Parent Feedback

An English/Spanish questionnaire (Appendix K) sampled a random selection of 100 program families. Items were selected from suggestions of the administrative staff. The community liaison person delivered and returned the questionnaires, which were anonymous. By mid-June, 44 questionnaires had been returned. Ten responded to the English questionnaire and 34 to the Spanish. The sample yielded the information reported in Table XXXVI.

TABLE XXXVI

Parent Responses to Questionnaire
Concerning Bilingual Program

	English N = 10	Spanish N = 34
Percent of parents who . . .		
understand bilingual education.	100	100
have only one child enrolled in the program.	70	50
have two or more children enrolled in the program.	30	50
have read the Bilingual Bulletin.	30	56
have been helped by the community liaison person.	60	93
had more contact with schools through the Bilingual Program.	80	74
are more interested in their child's education because of the Bilingual Program.	90	100
would like to meet with parents and teachers at school to:		
— learn more about the program.	100	91
— learn ways to help child at home.	100	93
have attended advisory community meeting.	60	40
believe that Spanish-Americans do better in the Bilingual Program.	90	100
Children's oral language dominance:		
English	100	78
Spanish	0	19
Both	0	3
Parent preference of language used for teaching:		
Spanish only	0	0
English only	10	0
Both	90	100

The questionnaire solicited suggestions for program improvement. These were numerous and varied. The six suggestions offered by most of the parents were:

— Continue to add a grade level per year so that pupils may remain in the program through high school graduation.

— Hire more Latin Teachers.

— Modify the Spanish taught to match that spoken in the home (i.e., Puerto Rican or Mexican, not textbook Castilian).

— Provide money for sitters so that parents can attend Advisory Committee meetings.

— Improve the teaching of pride in the Latin heritage and bilingual skills.

— Hire teachers qualified to teach language arts in both English and Spanish.

Another question asked how the community liaison person had been of assistance. Responses indicated that persons who were new to the community or monolingual (Spanish) relied on her to lead them to the school, clinic, and social service offices and then interpret. She was the intermediary when pupils had problems at school, the notifier of meetings and availability of services, finder of jobs and helper in securing social security numbers.

Conclusion

Parents demonstrated great enthusiasm for the program and interest in it.

They would like to participate by meeting at the school with teachers and parents to discuss their children's education and to learn how to reinforce school work at home. Parent interests appeared not to lie with the administrative policies and budget matters which have been the format of Advisory Committee meetings. Parents had a total of 39 different types of suggestions for the area of their concern, the classroom. There were only three suggestions given for Advisory Committee meetings: make them shorter; hold them in English; and hold them in Spanish.

SUMMARY

Primary - Elementary

— The change to a full-day kindergarten helped the Bilingual Program pupils to attain readiness for first grade work and to develop beginning skills in their second language.

— Lower primary Bilingual Program pupils did not achieve as well as the regular classes in the English curriculum. Pupils continued the acquisition of understanding and speaking skills in their second language. A delay in grade-level achievement might be expected in the process of dual-language learning. Several program changes aimed at process improvement also may have contributed to the outcome this year.

— By the end of third grade, the Bilingual Program class was achieving at or above grade level in English and had acquired speaking skills and beginning reading skills in Spanish.

Secondary

— The secondary program provided Spanish-speaking students with classes they could comprehend.

— History and social studies courses were presented from a Spanish-American viewpoint.

— The bilingual reading program objective of one-year's growth in English reading achievement needs to be revised downward to match actual achievement.

— The main concern of students centered around available jobs and opportunities for career training.

— Students indicated an active interest in the development of the Tutorial Program.

Staff

— Staff members continued program modification in the search for optimal teaching/learning processes for bilingual education.

— Bilingual student advisors assisted students and encouraged them to continue their education in and beyond high school.

-- Administrators endorsed the program and would recommend it for similar schools which need and desire it. However, wide adoption probably cannot be expected until the cost is lowered.

Parents

-- Parents endorsed the program and were interested in greater participation through the school.

Conclusion

Most of the curriculum objectives were achieved by at least 75% of the pupils.

The Milwaukee Bilingual Program has served as a model for the establishment of bilingual classes at seven additional city schools.

The evaluator's impression is that the program has been responsive to many of the pressing educational needs expressed by the Latin-American community, as indicated by the expansion of the program at Lincoln High School. Its flexibility has allowed for change, examples being the 1972-1973 addition of a social studies course, "Hispano-Urban Setting", at South Division and the addition of a bilingual reading resource teacher at Vieau. It has helped to develop links between the universities and the Milwaukee Public Schools in translating materials, providing continuing education for Latins, and teacher training for bilingual programs. It has developed bilingual curriculum materials such as the translation into Spanish and tape-recording of a history textbook for marginal readers and Spanish readers. It participated in the field testing of Spanish educational products developed by the Spanish Curricula Development Center in Florida. It served as the midwestern locale of the Curricula Adaptation Network Center for Bilingual/Bicultural Education, which adapted the products to the Spanish of the region. The program appears to be achieving all except one goal of bilingual education - the active participation and enrollment of non-Latins.

APPENDICES

MILWAUKEE BILINGUAL EDUCATION PROGRAM

1971 - 1972

An Abstract

MILWAUKEE PUBLIC SCHOOLS
Milwaukee, Wisconsin

ABSTRACT

The 1971-1972 Milwaukee Bilingual Education Program had an enrollment of 125 elementary pupils at Vieau School and 157 secondary students at South Division and Lincoln High Schools in the third year of this program. Elementary pupils were enrolled by their parents and spent all day every day in bilingual classrooms. Secondary pupils elected one or more bilingual social studies or reading classes. An additional 100 secondary students received tutorial help and/or help from bilingual student advisors. Classes were taught in English and Spanish by bilingual teachers.

Kindergarten

Both English-dominant and Spanish-dominant pupils learned to comprehend basic English and Spanish conversation; to converse in their dominant language; and to use basic classroom expressions in their second language. Although Spanish-dominant pupils entered school lacking numerical concepts, by the end of the school year over 70 percent of all pupils attained ten of the 13 mathematics objectives. Over 60 percent were able to identify, classify, and describe scientific observations. Results of a standardized test indicated that the all-day bilingual kindergarten class was better prepared for first grade work than the regular half-day kindergarten.

Primary

First and second graders showed initial slow progress in most academic areas. The ungraded program permitted pupils to learn subject content at their own rate,

first in their mother tongue and then in their second language. By the end of third grade, pupils were expected to be operating in both languages. The results for the end of third grade were:

— most pupils attained program objectives and the bilingual class surpassed the comparison group in English comprehension and reading, and mathematics;

— mastery of the mathematics objectives within the Bilingual Program did not reach criterion level;

— all pupils wrote legible English manuscript;

— pupils acquired a Spanish vocabulary for classroom and curriculum areas; and

— the group scored higher in English than in Spanish reading.

Social studies objectives were achieved by over 80 percent of the pupils. The initiation of a new science program resulted in slower implementation and lower achievement than expected, but improvement is anticipated. Those who were not Spanish-dominant need further experience in order to converse fluently in Spanish. The Milwaukee program field-tested and evaluated curriculum materials produced by the Title VII Spanish Curricula Development Center, Dade County, Florida. It also participated in the linguistic adaptation of the materials for the midwest region through the Curriculum Adaptation Network for Bilingual/Bicultural Education located in Milwaukee.

Secondary

High school students at South Division were offered the following bilingual courses: Hispano-American Culture, Language, and History; United States History; Personal Economics; and Sociology. These curricula emphasized Spanish-American culture, its contributions to and challenges in the United States. Classes were conducted half in Spanish and half in English. Those students who were monolingual demonstrated statistically significant gains in the comprehension of their

second language.

Students in bilingual reading classes at Lincoln and South Division High Schools gained an average grade equivalent of two to four months in English reading achievement, less than the anticipated progress.

Job opportunities and job training were the major concerns identified by 63 Bilingual Program students on a "most serious problems" scale.

Students endorsed the program in an opinion questionnaire which revealed that bilingual learning and a bilingual teacher were the most important program components. More than half of the students reported the Bilingual Program gave them greater pride in their Spanish heritage and improved second-language speaking and reading skills. Sixteen of the 21 June graduates from South Division (76%) planned to attend college.

Staff

Elementary staff members developed team teaching procedures. They noted improved information about and acquisition of suitable curriculum materials as a result of the addition of a Bilingual Resource Teacher.

Secondary staff initiated a tutorial program. Advisors and teachers were successful in encouraging more students to continue their education after high school.

Administration

School and Central Office administrators endorsed the Bilingual Program and emphasized its positive impact on Spanish-speaking pupils. They recommended closer interaction between the bilingual and regular school programs, and the formation of parent advisory committees for each school.

Parents

A Latin-American community liaison person was a successful source of communication between home and school, especially for newly-arrived families. A Spanish/English "Bilingual Bulletin" was a source of school information.

Respondents to a parent questionnaire generally found that the Bilingual Program increased their interest in and contact with the school. Parents wished to meet at school and learn how to help their children at home.

ED 072078

APPENDIX A

TM 002 112

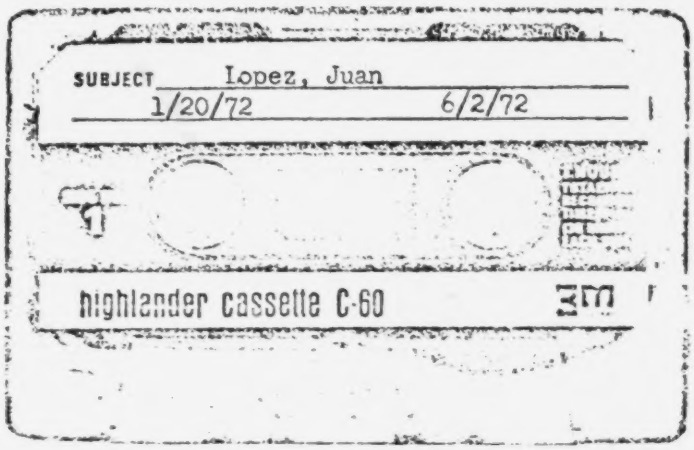
APPENDIX A

TEST OF COMPREHENSION AND USE OF ORAL SPANISH

Instructions to Tester

1) Each pupil should have a cassette of his own. If this is the first recording, print the pupil's name (last name first) and the date on Side 1.

Example:



2) If the tape has material on it, enter the new date and be sure to identify the place where the previous session ended. Do not erase previous test sessions.

3) The tape should be in the recorder and the microphone on a cloth or mat on the table between you and the pupil. Do not move the microphone or touch it except to turn it on when the pupil arrives and off when he leaves. This will help to insure clear reproduction of the spoken word.

4) It is important to keep the recorder running the entire time, including your greetings and general conversation with the pupil before the test begins. This will enable the rater to judge the pupil's language skills outside of the structured test situation.

5) Talking about the ten pictures should be an enjoyable experience for both the pupil and the tester. Be informal and friendly in order to put the pupil at ease. Let the pupil know that he is going to look at some pictures, talk about them, and then hear himself if he would like to have the tape played back.

6) If an English-dominant pupil understands the question but has difficulty answering in Spanish, he may be encouraged to respond in English. If it becomes obvious that the child does not understand the Spanish question, stop testing, tell him that's all for today, and play back the tape if he wants to hear it.

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

Test of Comprehension and Use of Oral Spanish
for the
Milwaukee Bilingual Education Program

This is _____. I'm going to talk in Spanish with _____.

_____ is _____ years old and in the _____ grade.

(English, Spanish, both Spanish and English) is (are) spoken at his home. Today is (date - month, day, year). TO AN ENGLISH CHILD: We're going to talk in Spanish about these pictures. TO A SPANISH CHILD: Vamos a hablar en español sobre estos cuadros.

- If an English-dominant pupil understands the question but has difficulty answering in Spanish, he may be encouraged to respond in English. -

QUESTIONS

PICTURE #1 (cat) ¿Qué es esto?

PICTURE #2 (hand) (point to fingers) ¿Qué son estos?

(point to nails) ¿Qué son éstos?

PICTURE #3 ¿Qué está celebrando el niño?

¿Con qué apaga las velitas el niño, con sus orejas? No, con la _____.

PICTURE #4 ¿Qué es éstos? Es un árbol de _____.

PICTURE #5 Esta señora va a cruzar la _____.

¿De qué color son los carros? (point to naranja y amarillo)

PICTURE #6 ¿Qué está haciendo mamá?

Después de desayunar, la mamá limpiará la casa, el papá irá a trabajar, ¿qué tu crees qué hará la niña?

Hay dos animales, un gato y un _____.

(point to dog's dish) ¿De quién es este plato?

PICTURE #7 Dime lo que ves en este cuadro.

¿Qué está haciendo el perro?

¿Qué clase de sombrero trae la niña?

La mamá quiere que Tito prenda la televisión. ¿Qué le dice?

Pepin quiere un pedazo de fruta. ¿Cómo se la pide a su mamá?

PICTURE #8 ¿Qué esta pasando?

#9 ¿Qué paso?

#10 ¿Qué pasará?

CONVERSATION

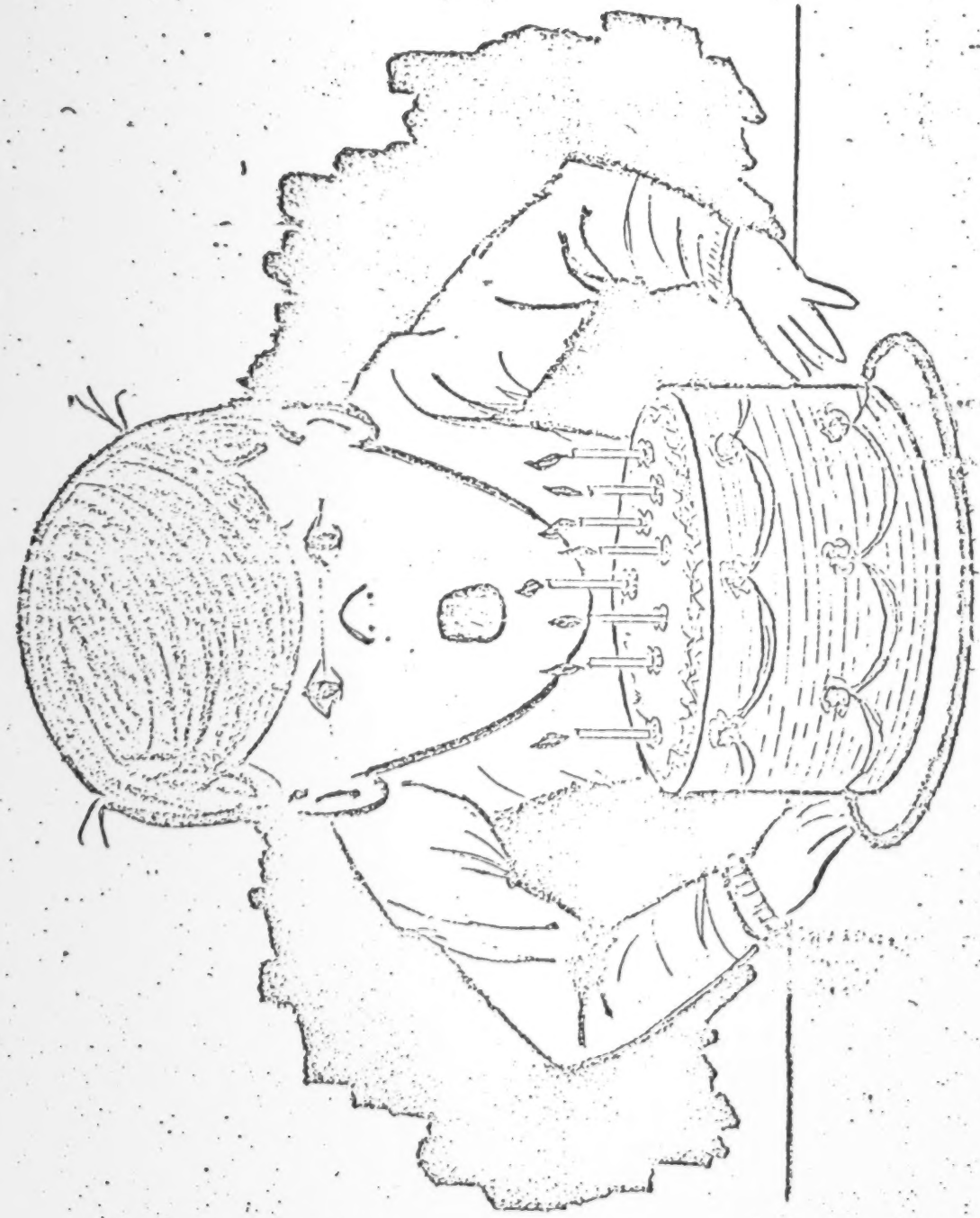
#11 Ahora les diré dos cosas que yo hago cada dia _____ luego ustedes me dicen dos cosas que ustedes hacen todos los dias.

#12 Ayer yo _____.

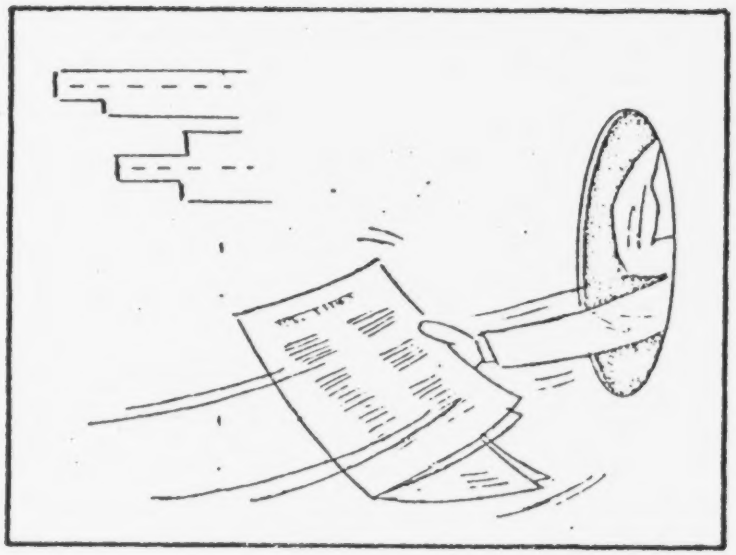
¿Qué hiciste ayer?

#13 Cuando llegue la primavera y caliente el tiempo, yo voy a oler las flores. ¿Qué horas tu?

Sample Question 3



Sample Question 9



140

TEST OF COMPREHENSION AND USE OF ORAL SPANISH

Instructions to Rater

1) Fill in blanks at the top of the rating sheet (names, dates, etc.).

2) The key word to listen for is identified on the rating sheet beside the response to be rated for each stimulus question.

3) In the "Understands" column, any logical response in English or Spanish would be checked (✓) "yes". No response or an illogical response would rate a zero.

   In the "Speaks" column, "unacceptable" means not understandable; "acceptable" means understandable; "like a native" means like a person born in any Spanish-American country.

4) Any pronunciation (English, Puerta Rican, Mexican, Cuban, or other) is acceptable if the speech is grammatical and understandable.

5) Pictures #8, 9, and 10 are to be used to elicit a free response type of conversation. Responses to these and questions 11, 12, and 13 will be used to rate word order, language structures, cadence, and ease of expression.

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

RATING SHEET:
Test of Comprehension and Use of Oral Spanish
for the
Milwaukee Bilingual Education Program

PUPIL _____ AGE _____ GRADE LEVEL _____
Last First

OMINANT LANGUAGE ☐ Span ☐ Eng ☐ Bilingual ACCENT ☐ Mexican ☐ Puerta Rican ☐ Other

ATE TESTED _____ DATE RATED _____ RATER _____

* * *

Test icture Number	Key Word	Response to be Rated	Understands (✓=Yes) (O=No)	Speaks (2=Like a native) (1=Acceptable) (O=Unacceptable)
1	gato	a		
		o		
		t		
2	dedos	initial d		
		intervocalic d		
		e		
	uñas	ñ		
		u		
3	cumpleaños	u		
		ñ		
	su	possession		
	boca	initial b		
4	navidad	final d		
5	calle	ll		
	naranja o anaranjado	j		
	amarillo	r		

Test Picture Number	Key Word	Response to be Rated	Understands (✓=Yes) (0=No)	Speaks (2=Like a native) (1=Acceptable) (0=Unacceptable)
6 (a)	any verb	present tense or participle		
(b)	any verb	future tense		
		personal a		
(c)	perro	rr		
(d)	de or del	possession		
		contraction		
7 (a)	está	present tense		
(b)	no	placement of no		
(c)	Prende la television	word order in commands familiar verb, prender		
(d)	¿Puedo cojer una fruta?	word order in questions familiar verb		
8-9-10	word order and language structures	present tense "ser"		
		word order in statements		
11-12-13	(tester questions, no pictures)	adjectives: position		
		form		
		articles: position		
		form		
		stress		
		liaison between like vowels and consonants		
		intonation		
		rhythm		
		ease of expression		

RATER COMMENTS _____

APPENDIX B

milwaukee public schools
Division of Curriculum and Instruction
Department of Elementary and Secondary Education
Bilingual Education Program

APPENDIX S

PUPIL ACHIEVEMENT RECORD

SPANISH LANGUAGE ARTS
PRIMARY LEVEL -- K-3

Pupil's Name_____ School_____ Date Started_____

Teachers' Names_____,_____,_____,_____

1. This record is to be started by the classroom teacher when the pupil enters the Bilingual Education Program in kindergarten or at the primary grade level.
2. When the pupil achieves a certain skill, the appropriate item will be initialed by his teacher.
3. The objective numbers coincide with the numbers in the list of "Performance Objectives, Spanish Language Arts, Primary Level -- K-3."
4. The goal is to help the pupils acquire a relevant vocabulary used in sentence context in different situations throughout the school day--not a number of memorized vocabulary words in isolation.

Vocabulary in Context
(Initial when pupil achieves skill.)

Objective Number		Understands	Speaks	Reads	Writes
1	Greetings				
	Leave-taking				
	Courtesy				
	Health				
	Age				
	Weather				
2	Classroom Directions and Expressions				
3	Classroom Objects and Locations				
4	Parts of the Body				
5	Body Actions				
6	Identifying Actions				
7	Colors				
8	Numbers				
9	Calendar				
10	Time				
	Clock				
	Days				
	Months				
	Seasons				
11	Clothing				
12	House				
13	Family Members				
14	Common Foods, Meals				
15	School Building				
16	School Personnel				
17	Holidays				
18	Animals				
19	Expressions and Vocabulary Dealing with:				
	Mathematics				
	Science				
	Social Studies				
	Art				
	Music				

Objective Number		Understands	Speaks	Reads	Writes
20	Sounds of Spanish				
	Vowel Sounds	____	____	____	____
	Consonant Sounds (Especially j, ll, n, p, r, rr, t) . .	____	____	____	____
	Initial, Intervocalic, and Final d . . .	____	____	____	____
	Initial and Intervocalic b	____	____	____	____
	Intonation and Rhythm in Statements, Questions, and Commands.	____	____	____	____
	Liaison Between Like Vowels and Consonants	____	____	____	____
	Recognizes Relationship Between Sounds and Printed Symbols.	____	____	____	____
	Reads Aloud with Proper Pronunciation and Intonation	____	____	____	____
21	Word Order and Language Structures				
	Word Order in Statements	____	____	____	____
	Word Order in Questions.	____	____	____	____
	Word Order in Commands	____	____	____	____
	Adjectives in Correct Position and Form.	____	____	____	____
	Possession	____	____	____	____
	Negative Sentence.	____	____	____	____
	Punctuation: Period, Question Mark, Exclamation Point.	____	____	____	____
	Articles, Nouns, Adjectives (Agreement in Number and Gender).	____	____	____	____
	Pronouns and Verbs (Familiar, Polite). .	____	____	____	____
	Contractions (al, del)	____	____	____	____
	Present Tense and Past Tense of Common, Regular Verbs (ar, er, ir)	____	____	____	____
	Present Tense of ser and estar	____	____	____	____
	Possession with de	____	____	____	____
	Personal a	____	____	____	____
	Placement of no.	____	____	____	____
	Placement and Agreement of Adjectives. .	____	____	____	____
	Present with Future Meaning (ir a) . . .	____	____	____	____
	Gustar, Faltar, Parecer.	____	____	____	____
22	Reading				

List the titles of the Spanish books the pupil has read.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX C

APPENDIX C

ITEM ANALYSIS

Spanish Oral Language Test
Donald N. McIsaac

This item analysis has been developed in conjunction with the educational program audit of the Milwaukee Bilingual Program. The test was the joint development of the Milwaukee program staff and the State Department of Public Instruction. This analysis represents a first look at the efficiacy of analyzing the reliability of results of the fifty item oral language test. The reliability analysis was limited as the item reliability was established on a limited N of 20 students in the Bilingual Program. The test is divided into two scales:

1. Oral Spanish test - understanding 22 items
2. Oral Spanish test - speaking 38 items

The test was administered by the tester pointing to a series of pictures asking a question of the student. The question was asked in Spanish and the student was expected to answer in Spanish. The process of the test situation was inconspicuously recorded on a cassette recorder. Each of the cassettes was reviewed and evaluated on each item for either "understanding" (which was registered by a verbal response) and "speaking" (which was a judgment as to the quality of speech.) The results of the evaluation were coded into punched cards for the reliability analysis.

Reliability Analysis Procedures

The reliability analysis reported herein was conducted using program TSTAT of the University of Wisconsin. The following statistics are produced: Mean, standard deviation, correlation with subscale, correlation with total scale, and choice distribution for each item.

Coefficient alpha, used to assess the reliability of all scales and subscales, is based upon the average correlation among items within a test. When the items under analysis are dichotomous, coefficient alpha is equivalent to the Kuder-Richardson Formula 20 (KR-20) reliability coefficient.

Coefficient alpha sets an upper limit to the reliability. If it is too low, the test is too short or the items have little in common. The level of reliability deemed satisfactory is to some extent a subjective and arbitrary decision and depends on how the obtained means use is to be used.

C.A. $\leq$ .5 - unsatisfactory reliability

.5 $\geq$ C.A. $\leq$ .7 - moderate reliability

C.A. $\geq$ .7 - high reliability

Following an initial reliability analysis, those items indicating low correlation with the subscale score were eliminated from the test. The subsequent runs produced coefficient alpha of greater than .9. Such a value is generally associated with tests of very high reliability. In the computer output which follows, the first is the analysis of all items. Those which were eliminated are so marked. The second output illustrates the analysis after weak items were eliminated.

(Statistics omitted from report - available on request.)

Summary follows

Summary

The first analysis, on all items, reveals an average response of 13.05. This indicates that slightly more than half of the total items were understood. Since understand was coded 1 and not understand was coded zero, a 50-50 split on mean scores would be 11.0. However, the alpha score of .7096 on the subscale indicates that it is quite reliable. The alpha of .8706 for scale two, speaking, was indicative of a highly reliable measure. The total coefficient alpha .8939 was not surprisingly high considering the exceptional reliability indicated by the two subscales.

Eight items were dropped on the basis of little or no contribution to the reliability assessment. Four of these (items 1,6, 14, 46) were dropped because all answers were identical and they exhibited zero variance. If the tests were to be administered to a larger group, these items should be included. In the case of item 46, every response was incorrect.

The subsequent analysis with eight items dropped indicated that the reliability was enhanced to the .9069 level. The results of this analysis are certainly not conclusive because of the small norming sample. The test exhibited sufficient reliability so as to warrant additional study. Because of the time-consuming and possibly expensive aspect of the scoring technique, the test should be reviewed from a cost-benefit view.

APPENDIX D

APPENDIX D

MILWAUKEE BILINGUAL EDUCATION PROGRAM
SPANISH READING LEVELS

Level	Title	
Readiness	En el Hogar y en la Escuela	Laidlaw
2	Dogo Corre y Brinca	Houghton-Mifflin
3	¿Quién va con Pina?	Houghton-Mifflin
	Anita y su Mamá	Houghton-Mifflin
	Los Globos	Houghton-Mifflin
4	Camino de la Escuela	Laidlaw
5	El Circo	Houghton-Mifflin
	Vamos a Medir	Houghton-Mifflin
	Vamos a Jugar	Houghton-Mifflin
6	Aprendemos a Leer	Houghton-Mifflin
7	Amigos de Aquí y de Allá	Laidlaw
8	Del Campo al Pueblo	Laidlaw
9	Aventuras Maravillosas	Laidlaw
10	Por Esos Caminos	Laidlaw

APPENDIX E

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

APPENDIX E

Milwaukee Bilingual Education Program

Concepts: Items Most Frequently Missed
on Addison-Wesley Math Unit Tests, January, 1971

BOOK 1

Test 4

1 . . Joining two sets.

8 . . Pupils not sure about subtraction concept. Probably need more work "firming up" addition concept.

10 . . Additive subtraction concept can be taught later in spiral when pupils have grasped subtraction and addition concepts more firmly.

Test 5

6, 10 > Inverse relationship - subtraction and addition

Test 6

4 . . Additive subtraction - inverse relationship

6 . . Using number line as aid to addition.

7 . . Additive subtraction

8 . . Addition of money; understanding of terms earned may have been problem.

9 . . Difficult to determine. Pupils not accustomed to marking errors.

Test 7

Need work in place value. May not be ready to move on.

4 . . Place value; writing symbols (4 for 40); confusion with semi-concrete representation.

6,7 . Order; related to place value difficulty.

8,9 . Place value - numeration

BOOK 2

Test 6

7 . . Difficult to ascertain. Do they know facts or are they confused by marking errors?

ED 072079

TM 002 118

APPENDIX F

APPENDIX F

Performance Test 4 SCIS
Material Objects Science Program

ACTIVITY I

OBJECTIVE: Describe and classify objects by properties.

Process Skills

Observing, describing, comparing, classifying

Material for Each Pupil

An assortment of 15 - 20 color cubes, colored beads and pegs, and sorting trays.

Procedure

Pupil sorts a collection of objects using one or more properties as basis for grouping.

Directions to Pupils

1) Open the paper bag and put the objects on your sorting tray. Put the paper clip in your bag.

2) Sort these objects by properties into groups. If you can't decide about some of the objects, put them in a "I don't know" pile.

3) Tell me about your groups.

4) What properties did you use?

After the first sorting is completed:

1) Put your objects into a pile again.

2) Sort the objects another way using a different property.

3) Tell me about your groups.

4) What property did you use?

After activity, have pupils place objects back into bag.

Possible Responses

Properties used in sorting: color, shape (round, square), size (little, big, long, short), material (wood, plastic)

ACTIVITY II

OBJECTIVE: Compare properties of objects to understand serial ordering.

Process Skills

Observing, describing, comparing, classifying, measuring

Materials for Each Pupil

9" x 12" oak tag on which is pasted a 1" piece of cloth and a bag containing three pieces of cloth of graduated lengths.

Procedure

Pupil orders three pieces of cloth using the cloth on the tag board as a starting point.

Directions to Pupils

1) Open the paper bag. Place the objects on your tray.

2) Look at the card. Look at the piece of cloth pasted on the card.

3) Place the three pieces of cloth on the card according to size.

4) Put the objects back into the bag. Put the bag on top of the card.

ACTIVITY III

OBJECTIVE: Describe and classify objects by material.

Process Skills

Observing, describing, comparing, classifying

Materials for Each Pupil

Four or five plastic objects; four or five pieces of cloth differing in color, size, and texture; five or more pieces of metal (brass, iron: keys, paper clips, screws, etc.); five or more pieces of wood (clothes pins, balsa, walnut, spools, etc.); two plastic containers for plastic and cloth materials; and one 9" x 12" oak tag.

Procedure

Each pupil receives a bag containing wood and metal objects, a container of plastic objects, and a container of cloth objects. Pupil identifies the materials in the plastic containers and groups his collection into two groups - wood and metal.

Directions to Pupil

1) Look at the objects in the two cups and decide how they were sorted.

2) Open your bag and place the objects on the tray. Sort the objects into groups. The two boxes should help you decide how to group your objects.

3) Tell me about this collection (plastic). Tell me about this box (cloth).

4) Tell me about your groups.

5) Put your objects back into the bag.

ACTIVITY IV

OBJECTIVES: Match like materials in different forms.
Use observable evidence to support his conclusion.

Process Skills

Observing, describing, comparing, classifying, interpreting evidence, and experimenting

Materials for Each Pupil

Three vials containing small amounts of salt water, colored sugar water, and lemon juice deluted in water; a piece of lump sugar, salt crystals (Kosher salt), and a slice of lemon; a tray.

Procedure

Pupil examines liquids and solids using appropriate senses to determine matching materials.

Directions to Pupil

1) Look at the three liquids in the bottles. Look at the three solids on your tray. Each liquid matches a solid. Try to match the liquids to the right solids. Put the liquid in front of the solid it matches. None of the liquids or solids will hurt you in any way. When pupil has matched solid to liquid ask, "How did you decide where the bottle goes?", "How can you be sure?".

2) If pupil does not respond to statement of problem, then tell pupil to use his senses.

3) If pupil does not respond to second direction, tell pupil to smell, look or taste to match.

4) If there is no response to any of these directions, operationally help pupils.

5) Ask suggested questions in Direction 1 frequently to clarify pupil's thinking.

MILWAUKEE PUBLIC SCHOOLS

Performance Test 4 SCIS
Material Objects Science Program

ACTIVITIES

NAME	I					II	III				IV	RATE BY NUMBER
	Names Property	Sorts - Color	Sorts - Size	Sorts - Shape	Other	Serial Ordering	Identifies Property Box 1	Identifies Property Box 2	Sorts by Material Into Two Groups	Other		

Amount of direction pupil needed to solve problem:

1) Proceeds to solve problem needing only general direction. Uses more than mere observing.

2) Suggestion to use senses.

3) Suggestion to smell, look, or taste to match.

4) Operational help given by teacher.

APPENDIX G

Cultura,,Lengua / Historia
De Hispanoamérica

Señor Burgos
Septiembre, 1971

Nombre_____ Clase_____

ED 072080

Intruciones:
Este examén es solamente una prueba del tipo de preguntas que se utilizara en proximos examenes en esta classe. El instructor también desea saber la abilidad del estudiante en ciertas areas que se cubriran en este curso. Conteste las preguntas lo mejor que pueda. No se preocupe si no puede responder a todas las preguntas. Los resultados de este examén no seran añadidos al grado final.

Instructions: This is solely a diagnostic test to determine the students ability to answer certain questions concerning Hispanic American Culture, Language and History. This test will also give the student an idea of the tipe of questions he will be required to answer in future exams. Answer the questions as best you can. Don't worry if you can't answer all the questions. The results of this test in noway will afect the outcome of your final grade.

1. Escriba dos razones las cuales dieron al establecimiento de La Alianza Para El Progreso.
Give two reasons why The Aliance For Progress was established.

2. Identifique sí puede, uno de los problemas economicos or sociales que hoy día enfrentan los países latinoamericanos y escriba su solucion.
Identify one economic or social problem facing Latin America and one possible solution.

3. Escoja tres de los siguientes ilustres latinoamericanos y diga que por que son ellos gente importante. Cesar Chavez, Armando Rodriguez, Lee Trevino, Toto Guizar, y Hector Garcia.
Identify why three of the following five prominent, contemporary Americans with a Spanish background are newsworthy: Cesar Chavez, Armando Rodriguez, Lee Trevino, Toto Guizar, Hector Garcia.

4. Escriba de las contribuciones de dos illustres latinoamericanos al modo de vida o a la cultura américana. Escoja líderes de ocupaciones diferentes.
Identify contributions to American Life and/or culture made by at least two Latin American leaders in different fields.

5. Que tienen en común la organización del gobierno Portorriqueño y la organización del gobierno Norteamericano? Escriba por lo menos tres similaridades.
Identify three similarities between the structure of government in Puerto Rico and the structure of government in the United States.

6. Identifique una razón por la cual la Doctrina de Monroe se dice que ayudo a la lucha por la independencia en la América Latina.
Give one reason why the Monroe Doctrine was an important contribution of the United States to Latin America's struggle for independence.

7. Que tienen las siguentes personas en comun? a)Simon Bolivar y George Washington b)Jose Marti y Carl Sandburg
Describe what each of the following pairs of figures had in common: a) Simon Bolivar and George Washington B) Jose Martí and Carl Sandburg

8. Explique en español o ingles en que modo la colonización española difiere de la colonización inglesa.
Describe in English or Spanish, one way in which Spanish colonization differs from English colonization.

9. Identifique en que dos modos influencio a los países latinoamericanos la constitución de los Estados Unidos de Norte América.
Identify two ways in which the United States Constitution influenced Latin American countries.

Use el siguente espacio para escribir sus respuestas.
Use the following space to write out your answers.

APPENDIX H

APPENDIX H

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

Milwaukee Bilingual Tutorial Program
Classroom Teacher Rating of Student Work and Attitude

Student: _____ Grade Level: ____ Subject: _____

Teacher: _____ Date: _____

	Yes	No
Is this student doing passing work?		
Is the student able to comprehend English?		
speak English?		
read English?		
write English?		

Please check (✔) the most appropriate column for each statement.

	Never	Seldom	Sometimes	Often	Very Often
Completes homework assignments.					
Turns in work on schedule.					
Brings necessary materials to class.					
Accepts responsibility.					
Takes care of materials and equipment.					
Requests help when needed.					
Responds when called on.					
Volunteers in class discussions.					
Attends class regularly.					
Respects the opinions of others.					
Is attentive in class.					
Shows respect for the teacher.					
Shows interest in the subject.					

ED 072081

APPENDIX I

)ARKEN IN THE BOX THAT REPRESENTS YOUR CHOICE.
PLEASE USE PENCIL ONLY.

APPENDIX I

GRADE LEVEL: ☐ 7-8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

Which bilingual courses ave you taken? ☐ Reading ☐ Hispano ☐ U.S. History ☐ Personal Economics ☐ Sociology

1) What is the language you speak best (your first language)? ☐ Spanish ☐ English

) Would you like to improve your ability in the other (second) language . . .

in speaking? ☐ Yes ☐ No in reading? ☐ Yes ☐ No

) What language(s) should be used in conducting Bilingual Program classes?

☐ Mostly Spanish ☐ Mostly English ☐ Half Spanish-Half English ☐ Other

4) How often do you speak Spanish . . .

	Often	Sometimes	Never
in the classroom?	☐	☐	☐
in the corridors?	☐	☐	☐
with friends?	☐	☐	☐
at home?	☐	☐	☐

) What is most important about Bilingual Program classes? Please rank these statements in order of importance (1 = most important).

Learning in two languages	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Having a bilingual teacher	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Having a Spanish-American teacher	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Learning about Latin culture	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Being with a group of understanding classmates	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

6) Have you ever recommended the Bilingual Program to a friend or relative? ☐ Yes ☐ No

) Did the Bilingual Program . . .

__ help you in other subjects?
__ give you more pride in your Spanish-American heritage?
__ help you feel better about school?
☐ improve your ability to speak your second language?
☐ improve your ability to read your second language?

) How many times did you go to see a bilingual student advisor? ☐ Never ☐ 1-5 ☐ 5-10 ☐ More than 10

If you went, did you get help from the student advisor? ☐ Yes ☐ No

) Would you be interested in getting help from a tutor with your schoolwork? ☐ Yes ☐ No

0) Would you be interested in being a tutor (being paid to help someone with his studies)? ☐ Yes ☐ No

1) Please write on the back of this sheet any suggestions you might have for the Bilingual Program.

ED 072082

T: 00

APPENDIX J

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

MILWAUKEE BILINGUAL PROGRAM

Elementary Staff Questionnaire
Spring, 1972

NAME _____

Please help to assess progress toward attainment of Bilingual Program goals and objectives based on your personal experience as a Bilingual Program teacher during the 1971-72 school year.

* * *

Team Teaching

1. Check areas in which you participated on a regular basis:

Area	Team Planning	Team Teaching	Staff Planning for Use of Materials	Review of Team Teaching Procedures
English Reading	___	___	___	___
Spanish Reading	___	___	___	___
English Language Arts	___	___	___	___
Spanish Language Arts	___	___	___	___
Mathematics	___	___	___	___
Science	___	___	___	___
Social Studies	___	___	___	___
Other (Specify) _____	___	___	___	___

2. How could team planning be improved?

_____

_____

_____

3. How could planning for the selection of materials be improved?

4. What changes <u>were made</u> in team activities as a result of your suggestions?

5. What changes did you suggest that <u>were not</u> put into practice?

6. Have you any suggestions for team teaching activities for next year?

Bilingual Resource Specialist

For each statement, check the column which best describes improvement of the Bilingual Program as a result of the addition of a Bilingual Resource Specialist.

Statement	Much Improvement	A Little Improvement	No Improvement
Leadership in curriculum development.	____	____	____
Leadership in instructional techniques.	____	____	____
Help in locating materials.	____	____	____
Help in evaluating materials.	____	____	____
Supervision of teacher aides.	____	____	____
Help with curriculum problems.	____	____	____
Help with instructional problems.	____	____	____
Coordination of team teaching, assignments, and class scheduling.	____	____	____
Information on new developments in bilingual education.	____	____	____
Development of a bilingual materials section in the Resource Center.	____	____	____
Help in obtaining supportive services, such as psychologist welfare, reading specialist.	____	____	____
Coordination of development of materials.	____	____	____
Cooperation in maintaining good home/ school relations.	____	____	____
Help with teaching individual pupils,	____	____	____
small groups,	____	____	____
large groups.	____	____	____
Ordering of books and materials.	____	____	____

Spanish Curriculum Development Center

Please indicate . . .	Strands You Taught	How Many Kits You Taught	Kits You Evaluated	Kits Not Evaluated and Why Not	Number of Pupils Who Participated
Science-Math					
Social Studies					
Fine Arts					
Spanish Vernacular					
Spanish as a Second Language					

General

1. How much of the day do you usually teach in English? ____ %

   in Spanish? ____ %

   Is this proportion satisfactory?

   _____

   _____

   _____

2. What were your major accomplishments?

   _____

   _____

   _____

General (Cont'd)

3. Please check those subjects which you taught bilingually.

☐ Mathematics ☐ Science ☐ Social Studies

4. How could the aide program be improved?

_____

_____

_____

5. How have you used the services of the community liaison person?

_____

_____

_____

6. What changes or additions to the evaluation would be of help to your teaching program?

_____

_____

_____

7. Do you have other suggestions for the bilingual elementary program?

_____

_____

_____

APPENDIX K

ED 072083

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

Parent-Community Questionnaire

For Members of the Spanish-American Community
Served by the Milwaukee Bilingual Education Program

Spring, 1972

The objectives of the Milwaukee Bilingual Program for parents and community are:

-- to inform the Spanish-American parents and community about the program

-- to obtain information from parents and the community about their concerns for the education of Spanish-American girls and boys

Please answer the following questions to indicate how well those objectives have been met.

* * *

For each question, put an x in the appropriate box ☒ .

1) Do you know what bilingual education is?

- ☐ Yes
- ☐ No

2) How many of your children are enrolled in the Milwaukee Bilingual Education Program?

- ☐ None
- ☐ One
- ☐ Two or more

3) What language does your child speak best?

- ☐ Spanish
- ☐ English

4) What language would you like to have used to teach your children?

- ☐ Spanish only
- ☐ English only
- ☐ Both English and Spanish

ED 072083

5) Have you read the school newsletter "Bilingual Bulletin"?

☐ Yes

☐ No

If you have read it, please tell how you would like it to be improved.

_____

_____

_____

_____

6) Have you had occasion to use the services of the community liaison person during this school year?

☐ Yes

☐ No

If yes, how has she helped you?

_____

_____

7) Have you had more contact with schools because of the Bilingual Program?

☐ Yes

☐ No

8) Are you more interested in your child's education because of the Bilingual Program?

☐ Yes

☐ No

9) Would you be interested in meeting at the school with other parents and the teacher:

— to learn more about the school program?

☐ Yes

☐ No

— to learn ways of helping your child at home?

☐ Yes

☐ No

10) Have you attended a meeting of the Bilingual Advisory Committee?

☐ Yes

☐ No

If you have not attended, would you like to give the reason.

_____

_____

_____

_____

11) Do you feel that most Spanish-American pupils make better progress in the Bilingual Program than they would in the regular school program?

☐ Yes

☐ No

12) What are your suggestions for the Bilingual Program?

_____

_____

_____

_____

_____

_____

_____

_____

MILWAUKEE PUBLIC SCHOOLS
DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT
Department of Educational Research and Program Assessment

Questionario Para Padres de la Comunidad

Para Miembros de la Comunidad Latina Quienes Son Servidos
Por El Programa de Educación Bilingüe de Las Escuelas Públicas de Milwaukee

Primavera, 1972

Los objetivos del programa de Educación Bilingue de Milwaukee para padres y para miembros de la comunidad son:

— informar a la comunidad Latina del programa

— obtener información de los padres y la comunidad de sus pensamientos sobre la educación de sus hijos

Por favor conteste las siguientes preguntas para que nos indique si estos objetivos han sido cumplidos.

* * *

Para cada pregunta, marque una x dentro de cada cuadro de la respuesta apropiada ☒ .

1) ¿Sabe usted lo que es educación bilingüe?

☐ Sí

☐ No

2) ¿Cuántos de sus niños participan en el programa de educación bilingüe de Milwaukee?

☐ Ninguno

☐ Uno

☐ Más de dos

3) ¿Qué idioma habla mejor su niño?

☐ español

☐ inglés

4) ¿Qué idioma le gustaría que se usara para enseñar a su niño?

☐ español nada más

☐ inglés nada más

☐ Ambos idiomas: inglés y español

5) ¿Ha leído usted la carta de noticias escolares que se titula "Boletín Bilingüe"?

☐ Sí

☐ No

¿Si lo ha leído, podría sugerir cómo lo mejoraría usted?

_____

_____

_____

_____

6) ¿Ha tenido la oportunidad de usar los servicios de Rosa Rodríguez (Community Liaison) en este año escolar?

☐ Sí

☐ No

Si contestó sí, ¿cómo le ha ayudado?

_____

_____

7) ¿Ha estado usted en mas comunicación con la escuela como resultado del programa bilingüe?

☐ Sí

☐ No

8) ¿Tiene usted más interes en la educación de su niño por tener el programa bilingüe?

☐ Sí

☐ No

9) Tendría usted interes en reunirse en la escuela con otros padres y la profesora:

— ¿para aprender más del programa escolar?

☐ Sí

☐ No

— ¿para aprender modos de ayudarle a su hijo en casa?

☐ Sí

☐ No

10) ¿Ha asistido usted a alguna reunión del comité consejero de Educación Bilingüe?

☐ Sí

☐ No

Si no ha asistido, nos podría dar sus razones.

_____

_____

_____

_____

11) ¿Cree usted que la mayor parte de los alumnos latinos tendrían mejor progreso en un programa de educación bilingüe que en un programa como los que regularmente ya existen de enseñanza en inglés?

☐ Sí

☐ No

12) ¿Cuáles son sus sugerencias para el programa bilingüe?

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX L

VALIDITY AND RELIABILITY DATA ON INSTRUMENTS USED IN THE
EVALUATION OF THE 1971-1972 MILWAUKEE BILINGUAL EDUCATION PROGRAM

Instrument	Validity	Reliability
Boehm Test of Basic Concepts Form A	*Content validity inferred from selection of items from curriculum and classroom usage	*1. Internal consistency: r=.90 for N=865 norm pupils 2. Internal consistency: r=.89 for N=37 Bilingual and Comparison pupils, Milwaukee Public Schools With the 4 most unreliable items removed, (Ques. 10, 24, 44, & 50), alpha coeficients of reliability = Category — r space — .83 quantity — .69 miscellaneous — .64 time — .52 overall — .90
Cognitive Abilities Test Primary II, Form 1	*Construct validity: factor analysis shows test loaded with "general reasoning" factor similar to Lorge-Thorndike Intelligence Test.	*Internal consistency: r=.90 for N=300 grade 2 norm pupils
Common Concepts Foreign Language Test	*Content validity: items written by expert linguists and selected for levels of difficulty by statistical analysis. *Concurrent validity: Spanish r=.72 with course marks for 172 elementary norm pupils.	*Internal consistency: r=.92 for 1,820 elementary norm pupils after 1-3 semesters of instruction

*Source - Test Manual

Instrument	Validity	Reliability
Cooperative Primary Tests Forms 12A and 23A	*Content validity: Objectives drafted and test constructed by experts in consultation with educators. Pilot tested on pupils and revised.	*Internal consistency: r for 300 norm pupils: Grade 1 Form 12 / Grade 3 Form 23 listening .82 / .79 math .86 / .86 reading .87 / .91 word analysis .90 / .92 writing / .90 Alternate form grades 2&3: r=.72-.92
Cooperative Social Studies Tests, American History, Senior High School, Form A	*Developed by scholars and field tested. Correlation with SCAT-V = .76 for N=450 norm students.	*Internal consistency: r=.90 for 450 10-12 grade norm students
GTA Inter-American Tests General Ability GA-1-CE HG-1-CEs Reading R-1-DE, L-1-CEs R-2-DE, L-2-CEs	*General Ability GA-1-CE: r with Metropolitan Readiness Test total = .80 for 106 norm pupils *Reading R-2-DE: r with Stanford Achievement Primary II = .76 for 102 grade 2 norm pupils	*Alternate Form General Ability GA-1-CE with GA-1-DE = .79 for 305 norm pupils HG-1-CEs with DEs = .59 for 24 grade 1 norm pupils in Texas Reading R-1-CE with DE = .95 for 220 grade 1 norm pupils L-1-CEs with DEs = .86 for 71 norm pupils R-2-DE with CE = .90 for 98 grade 2 norm pupils L-2-CEs with DEs = .74 for 270 grade 2 norm pupils

*Source - Test Manual

Instrument	Validity	Reliability
Lorge-Thorndike Intelligence Test Form 1	*Tests measure abstract intelligence through symbols and concepts. Grade 10: r with tests of academic progress = .73 to .86 for 2,250 norm pupils.	*Internal consistency: r=.92 for 2,552 grade 10-11 norm pupils
Metropolitan Readiness Test Form A	*Content: measures components judged important for first grade work Construct: correlation with Stanford Achievement Test, Oct.-May = .67 for USOE Reading Study first grade pupils	*Internal consistency: r=.90 to .93 for kindergarten pupils in four school systems
Nelson Reading Test Forms A & B	*Congruent: correlation with Hemmon-Nelson Tests of Mental Ability for Form A = .70 for 883 pupils Form B = .74 for 929 pupils in ninth grade	*Alternate forms: r=.92 for total test for 78 ninth grade students Internal consistency: r=.96 for 43 Bilingual Reading Program high school students, Milwaukee Public Schools
Tests of Academic Progress Form 1	*Test developed by experts and field tested. No statistical evidence of validity.	*Internal consistency: r= .85 science .92 reading .90 math for grade 10 norm sample
Test of Comprehension and Use of Oral Spanish	*Content: Developed by linguists, checked by experts in Spanish of Texas, Mexico, and Puerto Rico, and field tested.	*Test-retest: r=.93, 3 - 4 week interval, for nine kindergarten pupils

*Source - Test Manual